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NINTH ANNUAL REPORT

UNIVERSITY OF MARYLAND

EXTENSION SERVICE

FOR THE

YEAR 1923

Co-operative Extension Work in Agriculture and Home Economics, Extension Service, University of Maryland and the United States Department of Agriculture Co-operating.

T. B. SYMONS, Director.

Distributed in furtherance of Acts of Congress of
May 8 and June 30, 1914.

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R. A. JEHLE	Specialist in Pathology.
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†W. T. L. TALIAFERRO	Specialist in Farm Management.
†C. E. TEMPLE	Specialist in Pathology.
†F. W. BESLEY	Specialist in Forestry.

COUNTY DEMONSTRATION AGENTS

County	Name	Headquarters
Allegany	*R. F. Mc Henry	Cumberland
Anne Arundel	*Jesse M. Huffington	Annapolis
Baltimore	*W. C. Rhode	Towson
Calvert	*S. R. Newell	Prince Frederick
Caroline	*L. M. Goodwin	Denton
Carroll	*F. W. Fuller	Westminster
Cecil	*A. D. Radebaugh	Elkton
Cecil	*Fred L. Bull, Assistant	Elkton
Charles	*G. R. Stuntz	La Plata
Dorchester	*E. W. Montell	Cambridge
Frederick	*P. W. Chichester	Frederick
Garrett	*W. C. Jester	Oakland
Harford	*B. B. Derrick	Bel Air
Harford	*O. W. Anderson, Assistant	Bel Air
Kent	*H. B. Derrick	Chestertown
Howard	*M. H. Fairbank	Ellicott City
Montgomery	*W. C. Snarr	Rockville
Montgomery	*P. Calvert Cissel, Assistant	Rockville
Prince George's	*W. B. Posey	Upper Marlboro
Queen Anne's	*E. W. Grubb	Centreville
St. Mary's	*G. F. Wathen	Loveville
Somerset	*C. Z. Keller	Princess Anne
Talbot	*E. P. Walls	Easton
Washington	*M. D. Moore	Hagerstown
Wicomico	*G. R. Cobb	Salisbury
Worcester	*E. I. Oswald	Snow Hill

LOCAL AGENTS

*J. F. Armstrong (col.)	Southern Maryland	Seat Pleasant
*L. H. Martin (col.)	Eastern Shore	Princess Anne

* In co-operation with the U. S. Department of Agriculture.
† Devoting part time to Extension Work.

(Continued on Third Cover Page)

LETTERS OF TRANSMITTAL

DR. A. F. WOODS
President:

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Respectfully submitted,
THOMAS B. SYMONS,
Director, Extension Service.

College Park, Md.
January 1, 1924.

HON. S. M. SHOEMAKER,
Chairman, State Board of Agriculture:

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TO HIS EXCELLENCY ALBERT C. RITCHIE,
Governor of Maryland:

I have the honor to transmit herewith the Ninth Annual Report covering the work of the Extension Service of the University of Maryland, in cooperation with the U. S. Department of Agriculture, submitted to me through the President of the University.

Respectfully submitted,
S. M. SHOEMAKER,
Chairman, State Board of Agriculture.

Baltimore, Md.,
January 1, 1924.

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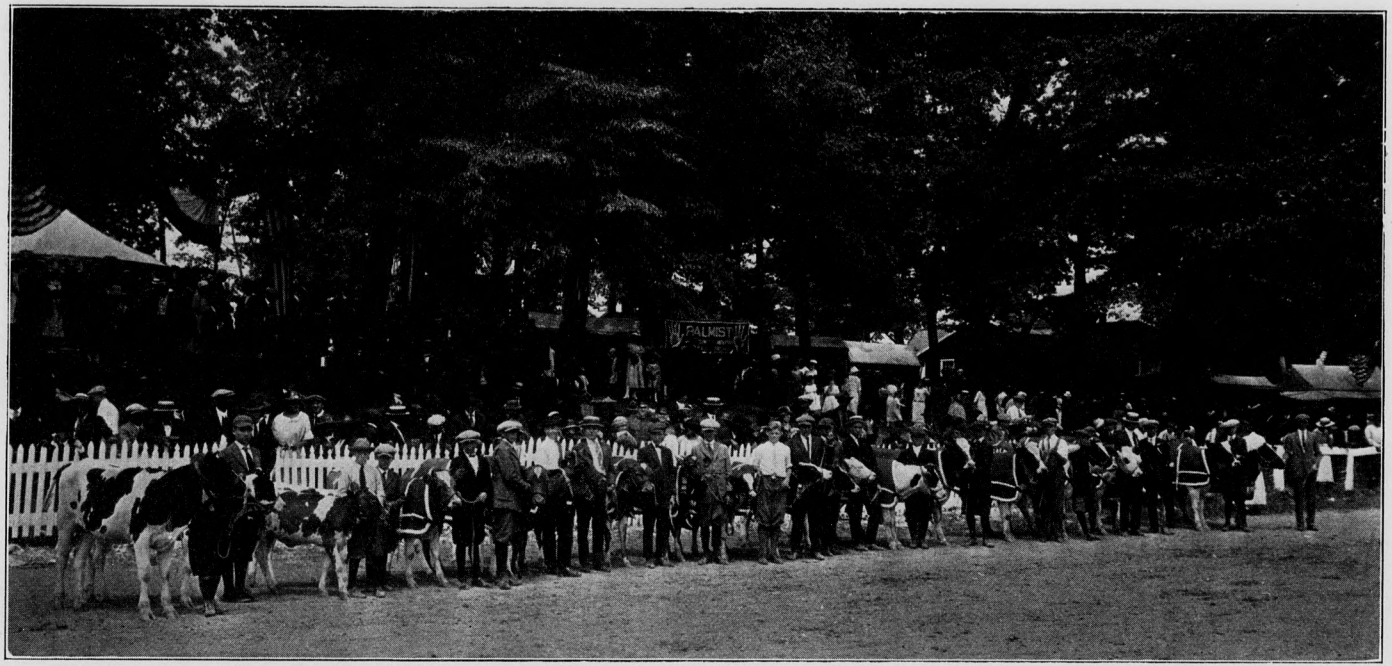


A "COMPANY FRONT" OF MONTGOMERY COUNTY CLUB MEMBERS AND THEIR CALVES.

NINTH ANNUAL REPORT
OF THE
UNIVERSITY OF MARYLAND
EXTENSION SERVICE
FOR THE YEAR 1923

By Thomas B. Symons, *Director.*

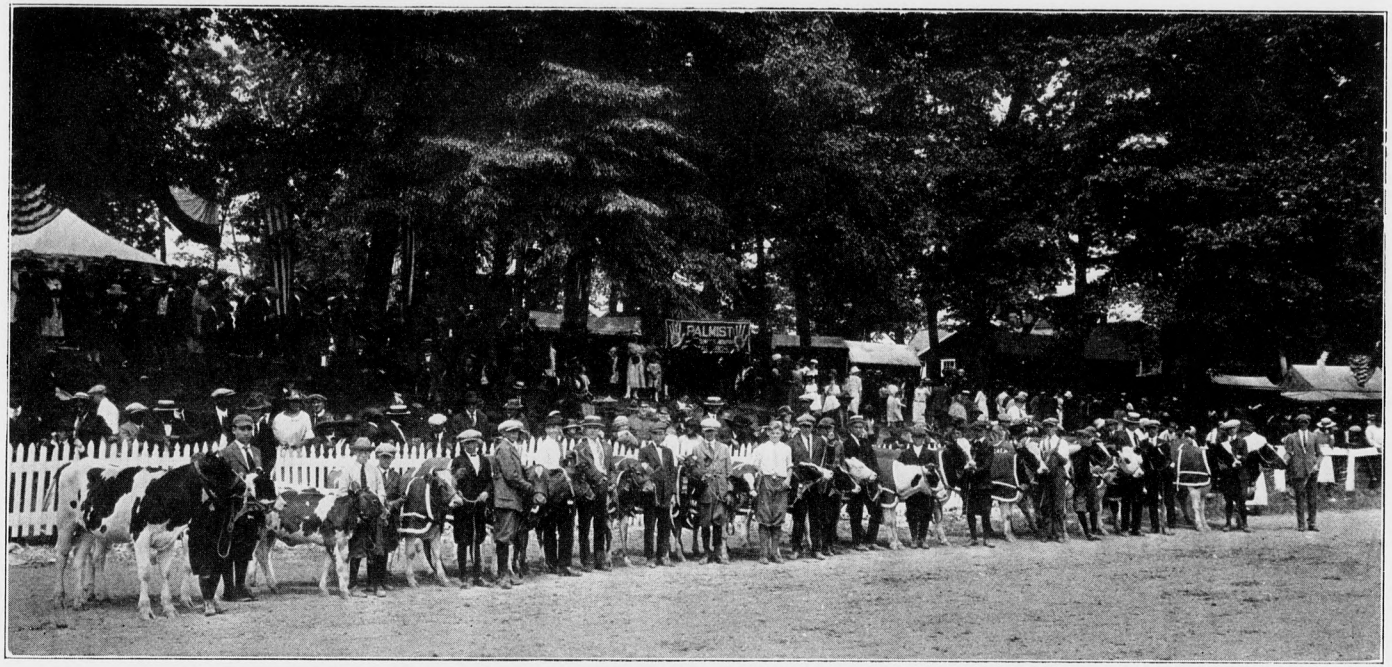
INTRODUCTION.

Agriculture is still far from recovering from the slump that befell the industry as a consequence of post war deflation. Confronted with perplexing difficulties, agriculture has been waiting patiently for a hopeful change in the ill-adjusted economic situation. Here and there, during the past year, the scale of prices received by farmers has been revised upward but not sufficiently to restore agriculture to a firm financial footing. On the other hand, there has been but a slight revision downward in prices of things which the farmer is called upon to purchase. Agriculture, consequently, continues to labor under a financial disadvantage.

Fortunately, Maryland has been less subjected to serious effects resulting from this situation than many other states. The diversity of agriculture possible in this State has prevented anything like the difficult situation prevalent in many regions where a one-crop system prevails. The nearby markets have likewise had a bouyant effect on prices, while affording an opportunity for the profitable production of many special crops. There has been comparatively little inflation in land values and few farms which have changed hands in recent years are staggering under an impossible capital investment.

No unusual or radical readjustments of farming operations in the State have been necessary. There has been no alarming reduction in acreages, although it must be admitted that the cumulative effects of the depression have forced many farmers into financial difficulties culminating in the surrender of their properties. Labor has been high priced and hard to obtain, due largely to the industrial prosperity of this region. Farmers are unable to compete with industry for labor.

The general success of the canning crop industry in the State the past year, together with the development in dairying and poultry, have been encouraging factors and have been responsible for increasing the income on hundreds of farms.



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The general financial situation among farmers, however, is not what it should be. Under the circumstances there has been no inducement for farmers to increase production by an expansion of their operations. This has been true in practically all lines of farming, except dairying and poultry raising.

Organization and Cooperation.

Despite the handicap of unfavorable economic conditions, there are striking evidences that the agriculture of the State has made distinct progress during the past year. Methods of production have improved; organization has made rapid strides; cooperative buying and selling have become more general; less profitable crops have given place to those yielding better returns; and more effort has been made to command top market prices by the standardization and careful grading of farm products. All of this has resulted in an improved agriculture for the State,—an agriculture that is more nearly ready than ever before to sustain the hardships of depression and to reap the benefits of any improvement in conditions.

Because during the past year the attention of the entire country has been directed to the value of organization and cooperation as corrective measures for the unusual agricultural situation, it might be said that one of the most valuable contributions of the Extension Service to the agricultural development of the State during that period has been its persistent effort along these lines. Its help and assistance in the formation, the maintenance and the proper functioning of agricultural organizations have been important elements in the success of practically every agricultural organization and cooperative association in the State.

These organizations are today operating in every part of Maryland. Some of them are engaged in cooperative selling of farm products valued at millions of dollars annually; others in cooperative buying of commodities which each year total hundreds of thousands of dollars; and all of them are striving to place agriculture on a higher plane, increase its recognition and influence and develop its social life.

Within the last two years the Farm Bureau movement in the State has shown pronounced strength. The affiliation with the American Farm Bureau Federation, established by the Maryland Agricultural Society, has been strengthened by the formation of local and county Farm Bureaus in eighteen counties of the State. At the last meeting of the Maryland Agricultural Society, this organization, together with the seven State associations affiliated with it, united forces with the Farm Bureau under the name of the Maryland Agricultural Society—the Maryland Farm Bureau Federation, thus giving the State the largest and most compact organization of farmers in its history.

This organization has progressed in harmony with the State Grange and together these two organizations have been moving forward in their great work of promoting unity of thought and action among farmers in Maryland. The result has been an increase of confidence in the benefits of organization, a spread of organization influence to greater numbers of farmers and the stimulation of numerous worth-while cooperative activities. The past year must be regarded as a most auspicious period from the organization standpoint.

Community Plant Beds.

Probably one of the most successful projects in extension work during the past year has been the improvement in acreage yields of tomatoes by growing better plants in community plant beds. In cooperation with the Tri-State Packers' Association, provision was made to extend this work which had proved so successful in Cecil County in 1922.

QUALITY TOMATO PLANTS IN A TALBOT COUNTY COMMUNITY BED

Thirty-five beds were established in the State, distributed over thirteen counties. These beds varied in size from one-eighth acre to one and one-half acres. Canners effectively cooperated in the establishment of twenty-eight beds. More then 7,500,000 plants were produced in these centralized plant beds, and the quality of the plants was much above the ordinary. In all the counties there was an increased yield in tomatoes from the use of these plants.

While it was a good growing year for tomatoes, yet the agitation among the growers to use good seed and produce good plants served to emphasize better cultural methods in the growing of the crop. As a result, the increased yield from plant demonstrations varied from one and one-half to six tons per acre, while the State average—according to the U. S. Department of Agriculture—increased from three and one-half tons in 1922 to five and one-half tons in 1923. This would give us a total net increase of 70,680 tons of tomatoes. The average yield for 1923 is the highest Maryland has had for many years. This increased yield returned to the growers a sum in excess of one million dollars.

This serves to illustrate what the cooperation of all forces will accomplish in increasing yields.

REFINISHING FURNITURE—A HOME BEAUTIFYING POSSIBILITY AT MODERATE COST.

Boys' Club Work

Splendid progress marked the club work in 1923. The outstanding accomplishment was the winning of the international gold cup by a team of three boys who had won the national championship at the National Dairy Show for judging dairy cattle. The team competed with the English team at the Royal Agricultural Show and again won the cup which has now been in possession of Maryland club boys for two years.

Women's Work.

The year 1923 will be notable in the work of the Extension Service by virtue of the response of the rural women to the efforts

of the home demonstration workers to aid them with their problems. A large number of community organizations of women have been formed in addition to the affiliation of the women with farm bureau locals. The extension workers have been enabled to render more efficient service through the organized units of rural women. It is believed that the growing interest in this work will mean much for rural Maryland in the future.

Success in Corn Exhibits.

While 1923 has not been a favorable year for the production of prize corn, yet in competition with other growers from the same region, Maryland won a total of thirty-four prizes at the International Grain and Hay Show. This exhibition from year to year has served to stimulate the interest of Maryland corn growers in better selection and standardization of types of corn. The results of this work have come through the cooperation of the growers, county agents and specialists of the Experiment Station and Extension Service.

State Agricultural Program.

At the conclusion of the annual meeting of the Extension Service workers in January, 1923, Governor Albert C. Ritchie invited them and the leaders of farm organizations of the State to a conference in Annapolis. The Governor's desire was to meet the agricultural workers and to give a luncheon in their honor at the Executive Mansion.

A large delegation of farmers and farm women, together with the members of the Extension Service, assembled at the State House on January 26, 1923. At this conference the Governor expressed a desired to learn what was needed to develop the agricultural conditions in the State and to aid the farmers during the serious economic situation.

The result of the meeting was that the conference requested the Governor to appoint a committee on an Agricultural Program. This committee was composed of the leading farmers and farm women of the State, with representatives of the University of Maryland as advisory members. Several meetings were held by the committee during the past year and it submitted its report to the Governor on November 20, 1923. Various members of the Extension Service assisted in developing and arriving at the conclusions set forth and the recommendations submitted.

It is believed that this committee's report will mean much in calling to the attention of farmers and citizens generally, the importance of carrying forward a progressive State Agricultural Program.

Crop Yields for 1923.

As a matter of reference, for the past four years I have included in the annual report of the Service, crop yields and values for the year with a comparison of the previous year. These figures are secured from the Bureau of Agricultural Economics, U. S. Department of Agriculture. It is seen that the total value for 1923 exceeds that of 1922 by $4,420,000. We also observe a drop in the acreage of some of the cereal crops.

Maryland Crop Statistics, Dec. 1, 1923.

	1922	1923
1. CORN:		
Acres	642,000	642,000
Yield per acre (bus.)	40.0	39.3
Total production (bus.)	25,680,000	25,231,000
Price Dec. 1st	.68	.82
Total farm value	$17,462,000	$20,689,000
Value per acre	$27.20	$32.23
2. WHEAT:		
Acres	578,000	543,000
Yield per acre (bus.)	16.5	19.2
Total production (bus.)	9,537,000	10,426,000
Price Dec. 1st	$1.12	$1.00
Total farm value	$10,681,000	$10,426,000
Value per acre	$18.48	$19.20
3. OATS:		
Acres	58,000	59,000
Yield per acre (bus.)	30.0	29.8
Total production (bus.)	1,740,000	1,758,000
Price Dec. 1st	.51	.54
Total farm value	$887,000	$949,000
Value per acre	$15.30	$16.09
4. BARLEY:		
Acres	4,000	4,000
Yield per acre (bus.)	32.0	33.0
Total production (bus.)	128,000	132,000
Price Dec. 1st	.75	.80
Total farm value	$96,000	$106,000
Value per acre	$24.00	$26.40
5. RYE:		
Acres	17,000	17,000
Yield per acre (bus.)	15.2	15.8
Total production (bus.)	258,000	269,000
Price Dec. 1st	$1.10	.97
Total farm value	$284,000	$261,000
Value per acre	$16.72	$15.33
6 BUCKWHEAT:		
Acres	9,000	9,000
Yield per acre (bus.)	20.6	22.1
Total production (bus.)	185,000	199,000
Price Dec. 1st	.86	$1.00
Total farm value	$159,000	$199,000
Value per acre	$17.72	$22.10

	1922	1923
7. POTATOES:		
Acres	51,000	49,000
Yield per acre (bus.)	101	80
Total production (bus.)	5,151,000	3,920,000
Price Dec. 1st	.60	$1.00
Total farm value	$3,091,000	$3,920,000
Value per acre	$60.60	$80.00
8. SWEET POTATOES:		
Acres	10,000	9,000
Yield per acre (bus.)	153	130
Total production (bus.)	1,530,000	1,170,000
Price Dec. 1st	.50	$1.15
Total farm value	$765,000	$1,346,000
Value per acre	$76.50	$149.50
9. TOMATOES:		
Acres	37,170	44,230
Yield per acre (T.)	3.6	5.5
Total production (T.)	133,800	243,300
Price Dec. 1st	$14.66	$15.24
Total farm value	$1,962,000	$3,708,000
Value per acre	$52.78	$83.84
10. HAY:		
Acres	406,000	400,000
Yield per acre (T.)	1.62	1.05
Total production (T.)	658,000	420,000
Price Dec. 1st	$18.50	$23.60
Total Farm value	$12,173,000	$9,912,000
Value per acre	$29.97	$24.78
11. TOBACCO:		
Acres	26,000	24,000
Yield per acre (lbs.)	770	792
Total production (lbs.)	20,020,000	19,008,000
Price Dec. 1st	.175	.22
Total farm value	$3,504,000	$4,182,000
Value per acre	$134.75	$174.24
12. APPLES:		
Total production (bus.)	1,500,000	2,300,000
Price Dec. 1st	.90	.86
Total farm value	$1,350,000	$1,978,000
13. PEACHES:		
Total production (bus.)	495,000	631,000
Price Dec. 1st	$1.70	$1.50
Total farm value	$842,000	$946,000
14. PEARS:		
Total production (bus.)	256,000	374,000
Price Dec. 1st	.50	$1.00
Total farm value	$128,000	$374,000
SUMMARY:		
Acres in all crops	1,984,000	1,934,000
Value of all crops	$63,140,000	$67,560,000

The Extension Service has probably been able to render a greater service and a more appreciated service during the past year than ever before in its history.

The times were such as to call for modifications of farming methods, changes in rotations of crops and the employment of every factor looking to economical production and marketing of

farm crops and the husbanding of resources. Conditions called for expert knowledge, expert advice and carefully proven practices. It is gratifying to know that farmers and home makers have made increasing demands upon the service, thereby showing their confidence in the county extension workers and specialists and an appreciation of their efforts.

The following will give a discussion of the work of the Service by projects:

Administration.

There has been no change in the administration of the Service during the past year. It is believed that one of our weakest links is that we have not sufficient funds to justify employing a district agent to aid in a more regular and careful supervision of the county agents and their programs of work, especially the new agents who join the force to fill vacancies.

The Director and Assistant Director have done their utmost in this direction but other pressing matters have reduced available time for frequent and careful supervisory visits.

The relation of the Service to other departments and divisions of the Institution is most cordial and there is splendid cooperation among all workers in the agricultural field. The same may be said regarding our relations with the State Department of Public Instruction and similar organizations in the State. By virtue of the fact that all State agricultural activities are under one board, there is little difficulty in maintaining these relations.

Farm Organizations.

As cited heretofore, the Service has assisted as far as possible in the organization of the Farm Bureau in eighteen counties of the State. There is close working cooperation between our forces and organized forces of men and women in the State, including the Grange, Farm Bureau and Women's Clubs. There are also close working relations between the Service and the cooperative selling associations in the State. In fact, our specialists and agents have from the beginning fostered and assisted in developing these organizations.

County Fairs.

While Maryland has no regular "State Fair," designated as such by the State, yet the Timonium Agricultural Fair is assuming the proportions of a State Fair. The same may be said for Hagerstown and Frederick. There is no State appropriation for agricultural exhibits at these and other county fairs. The Service has been severely handicapped in not having available funds to put on satisfactory educational exhibits at these fairs.

For several years a State-wide boys' dairy judging contest has been held at Timonium. This has served to increase the interest in dairy and livestock exhibits. This fair has also contributed liberally in prizes for boys' club work and also for general agricultural and home economic exhibits.

Our relation with all the fairs is cooperative and we make special efforts to comply with their requests for exhibits from the University.

We trust that the Service may have a regular department of exhibits with adequate funds to meet this opportunity in carrying information to the farmers of the State.

Sources of Extension Revenue.

During the fiscal year ending June 30, 1923, there were available for Extension Work the following funds: Federal Smith-Lever, $56,287.11; State Smith-Lever, $46,287.11; U. S. Department of Agriculture (regular), $19,200; Supplementary Extension Fund (Federal), $14,676.40; County Demonstration Fund, $48,000; State Funds for General Extension, $15,000; State Horticultural Fund, $8,000; and $38,776 contributed by the various counties, or a total of $246,226.62.

During the present fiscal year, ending June 30, 1924, there are available: Federal Smith-Lever, $56,287.11; State Smith-Lever, $46,287.11; U. S. Department of Agriculture (regular), $19,200; Supplementary Extension Fund (Federal), $14,676.40; County Demonstration Fund, $48,000; State funds for General Extension, $15,000; State Horticultural Fund, $8,000; and about $44,000 contributed by the various counties, or a total of $251,450.62.

A detailed statement of the expenditure of the funds available for the fiscal year ending June 30, 1923, is appended to this report.

Changes in Personnel.

The following changes in personnel have occurred during the past year: W. Clayton Jester appointed county agent in Garrett county December 1, 1922, to succeed J. A. Towler who resigned December 31st; Ernest W. Grubb appointed county agent in Queen Anne's county May 15, 1923, to succeed O. C. Jones who resigned May 31, 1923; M. D. Moore appointed county agent in Washington county December 1, 1922, to succeed Stanley E. Day who resigned September 17, 1922; L. M. Goodwin appointed county agent in Caroline county August 1, 1923, to succeed W. Collins Thomas who resigned July 31, 1923; John McGill, Jr. resigned as county agent for Frederick county effective November 30, 1923.

Miss Dorothy Emerson was appointed Girls' Club agent April 1, 1923, to succeed Miss Adice S. Jones who resigned December 31, 1922; Mrs. Marion C. Bell, district agent in Home Demonstration Work has been granted a leave of absence to pursue studies at Columbia University; Miss Bessie M. Volk was appointed home demonstration agent for Allegany county January 1, 1923, to succeed Miss Rhea Morgan who resigned December 31, 1922; Miss Mary Graham was appointed home demonstration agent for Baltimore county on March 10, 1923; Miss Sara E. Coyne was appointed home demonstration agent for Dorchester county July 16, 1923, to succeed Miss Elizabeth Van Scoter who resigned December 20, 1922; Miss E. Isabelle Cobb was appointed home demonstration agent for Carroll county September 1, 1923, to succeed Miss Rachel Everett who resigned August 31, 1923; Miss Lillian R. Grimm was appointed home demonstration agent for Cecil county August 6, 1923, to succeed Miss Elizabeth V. Hodgson who resigned July 7, 1923.

Increasing Efficiency of Workers.

Perhaps a more thorough realization by each worker in the Service of erecting and pursuing a definite program of work has greatly aided in improving efficiency of the force. Special and group conferences have been held for the purpose of emphasizing coordination of work. The regular group conferences of agents have been held monthly and we have also held monthly conferences of the specialists at headquarters.

A special effort has been made to study the work of the specialists and to measure the progress of their work. We are more and more developing the principle that the specialist's work is an integral part of any program carried out by the county and home demonstration agent.

The organization of the Extension office at headquarters is admirable and efficient. The maintenance of the staff, together with the central stenographic assistance is in the interest of economy and efficiency and harmonious relations.

The system of keeping records and financial accounts under the able supervision of Miss K. G. Connolly is very satisfactory. Altogether 30,889 first-class letters have been mailed from the office while all the pieces of mail sent from the office numbered about 63,156.

I am glad again to acknowledge my obligation to all members of the Service for their cordial support and loyal cooperation and especially to Assistant Director F. B. Bomberger and the State home demonstration agent, Miss Venia M. Kellar, for their able support and assistance in directing the work of the organization.

PUBLICATIONS.

The following publications have been issued by the Service during the past year: Circular No. 49, "Formulas and Schedule of Feeding for Young and Partly Grown Chicks," 1 page, 3,000 copies; Information card No. 7, "Insure Your Tobacco Crop Against Wild Fire," 1 page, 4,000 copies; Circular No. 4, "Strawberries" (revised), 4 pages, 2,000 copies; Circular No. 54, "Winter Egg Production," 4 pages, 5,000 copies; Circular, "Plan for Poultry House," 1 page, 1,000 copies; Eighth Annual Report, with 64 pages, 2,000 copies; Bulletin No. 23, "Garden Flowers" (revised), 60 pages, 5,000 copies; Bulletin No. 26, "The Cooperative Association Law of Maryland," 20 pages, 5,000 copies; Bulletin No. 27, "More Tomatoes from Fewer Acres," 12 pages, 7,000 copies; Bulletin No. 28, "Maryland Farm Statistics," 56 pages, 6,000 copies.

In addition the Extension Service News, a monthly publication has been issued regularly. During the year 108,000 copies, with 432,000 pages, have been published.

Mr. M. D. Bowers, specialist in agricultural journalism, has rendered unusually able service in this department of the Service. The Extension Service News has been revised and is now a very creditable little paper. Aside from issuing this paper, Mr. Bowers has assisted in many administrative details with reference to addresses and publicity.

He has furnished the daily, weekly and agricultural press with a large number of articles bearing upon the accomplishments of the Service.

There are great possibilities for developing the publicity or information work of the Service.

Revision of Mailing List.

During the past year a complete revision of the mailing list of the Institution has been accomplished. A central mailing service for all divisions of the Institution has been set up in the office of the Extension Service. This list now contains a total of 65,000 names, classified under proper divisions. This has been rather expensive as all names are upon regular addressograph plates.

Proportional charges are made to other departments for addressing and mailing work. The resident instruction and investigational divisions contributed on an equal basis with the Extension Service in the purchase of machines, list containers and other expenses.

PROJECTS

The work of the service is conducted under definite projects which are approved by the Extension Service, U. S. Department of Agriculture. In the following summary, it is impossible to

give a discussion of the progress made in each county. It is understood that both agents and specialists are mutually responsible and share equally in credit for the results obtained.

COUNTY DEMONSTRATION WORK.

All county agent work is conducted under this project. It is a matter of pride that we have maintained a county agent in every county of the State since 1917. We also have enjoyed a comparatively small turn-over in agents. As a result, definite progress is being made in the majority of counties in carrying out programs of work.

Much time of the agents during the past year has been devoted to organization activities. Farm Bureaus have been organized in eighteen of the twenty-three counties. With a large number of locals of both the Farm Bureau and the Grange in many counties, the agents have been crowded in meeting the demands of these new organizations. They have developed new leaders and a large number of groups are seeking to obtain definite goals in community programs and cooperative marketing work.

A study of the annual reports of the agents shows marked progress over previous years as a result of organization assistance and definite programs of work. In fact, one of the problems of the successful agent is so to adjust his work as not to over-tax himself in meeting the requests of farm organizations for assistance.

During the serious economic situation of the past two years, the agents have served as a leveling force, so to speak, in preventing farmers from engaging in projects which were not sound economically and in showing that while cooperative marketing offers a means for the better sale of farm products, its effectiveness depends upon many important factors, not the least of which is an economically produced and standardized product.

During the season of 1923, the county agents report that the farmers, through their organizations, purchased farm supplies to the amount of $1,179,031.18, with a net saving of $106,261.90. They sold farm products cooperatively to the amount of $2,725,903.04, with a net saving of $1,079,988.48. These figugres are considerably under the total because they do not include the large part of the dairy products and tobacco handled by cooperative organizations of producers in this State. Much greater progress will be made in this direction in 1924.

Below is given a brief summary of the agents' work:

Number of farm visits made in conducting Extension work	13,291
Number of calls on agents for assistance	49,551
Number of individual letters written by agents	51,047
Number of Extension articles prepared and published	1,639
Number of demonstration meetings held	822
Number of people who attended demonstration meetings	13,778
Number of other cooperative educational meetings held	1,863
Number in attendance at these meetings	141,504
Number of demonstrations conducted	9,510
Number of acres under special demonstrations of cereals, fruits, truck crops, etc.	35,170
Direct increase in yield on these demonstrations, value	$860,902.81
Number of farmers directly influenced in selling their products	8,634

A CANTALOUPE GRADING DEMONSTRATION BY A NEGRO FARMER.

Negro Work.

Limited funds prevented extending the negro work in the State. The two agents—one on the Eastern Shore and one in Southern Maryland—have submitted excellent reports showing that they are serving their people and greatly assisting the negro farmers with their problems. It is hoped that additional money will become available to develop further this work among our colored population.

HOME DEMONSTRATION WORK.

The home demonstration work has come to be a comprehensive system of education for rural home makers. Its object is the

fullest and finest development of women and girls through the use of all the many resources of the farm home and farm community. There is a growing appreciation of and interest in home demonstration work among the women of the State. The work has developed by degrees to a place of such usefulness and importance that its value is being duly recognized and appreciated. This interest is being demonstrated in the following ways:

1. Stronger and larger rural women's clubs are being organized in every county where there is a home demonstration agent.
2. County federations of rural women's clubs are working for community and county interests.
3. Programs with goals are being satisfactorily carried out.
4. Counties are making larger appropriations for the support of the work.
5. The requests coming to headquarters for help have been definite. The people have known what kind of information they wanted.
6. Girls' club work has been popularized through public demonstrations and the training of teams.
7. Local leadership in both women's and girls' work has done much to help reach a greater number of homes, and create interest in all projects being carried out.
8. In meeting the needs of the homes and communities in the State definitely organized lines of work have been followed, and rural progress has been made in the development of community interest.

Eighteen home demonstration agents have worked in the State during the past year. It is hoped to have a home demonstration agent in every county in 1924. Miss Venia M. Kellar, in charge of women's work, reports splendid progress in the general program outlined above. The women's and girls' club work is coordinated under the home demonstration agents in the counties.

Women's Organizations.

The outstanding accomplishment in this work during the past year is the cooperation of rural women through their organizations. In fact, in most cases the home demonstration agents have been the means of bringing about the organization of rural women's clubs. There are now 149 clubs working in the counties with a total membership of 5,149 women. In seven counties, the clubs have formed county organizations which, in most cases, have affiliated with the Farm Bureau and State Federation of Women's Clubs.

With the help of the home demonstration agent, each women's club makes out a yearly program which includes work to meet the needs of the members and the community. Such programs include work in food and nutrition, clothing, home, health and sanitation, household management and home furnishing, gardening, poultry work and income earning features. The members of the club select the lines of work to be undertaken and the leaders determine the goals and keep the records. The work of these clubs has been an inspiration to all who have observed the progress and interest manifested in the programs by rural women.

BALTIMORE COUNTY SHOWS ITS HOME DEMONSTRATION PROGRAM AT THE WOMEN'S SHORT COURSE.

Training Schools for Local Leaders.

Forty meetings were held for the training of local leaders by the home demonstration agents and specialists. Leaders were trained in the following subjects; clothing, millinery, household management, poultry and girls' club activities. The training of local leaders to help carry on and assist with programs of work has been a great help to the home demonstration agents.

The average rural woman is diffident as to her ability and leadership with other women, and it is only by careful supervision and well planned subject matter that the local leaders have been able to impart to other groups of women the information obtained at a training school.

Experience, the past year, has shown the value of local leaders. Home demonstration work is being strengthened in every way by their assistance. They are helping to specialize home demonstration work. They have not only assisted the home demonstration agent with demonstrations, but have assisted in collecting records of work done and have helped with achievement programs, etc.

Ninety-five per cent of all the women's clubs have completed their year's program of work. They have not only reached their goal, but many have gone far beyond it. Several of the things accomplished are due to local leadership.

Women's work has made great progress the past year due to the fact that the clubs have had definite programs and have worked for definite results. Definite aims and purposes are essential in obtaining satisfactory and progressive results, and we have had both in the programs of work for the past year. All county and community organizations are the stronger for women's and girls' club work.

Community Activities and County Short Courses.

There are a number of community activities such as picnics, field days, community exhibits and farm bureau meetings in which rural women are especially interested. These serve to develop community leaders. The members of the Extension Service cooperate in all such projects. In some counties short courses for rural women have been held with success.

Rural Women's Short Course.

Through the efforts of Miss Kellar and her associates, and the cooperation of the University authorities, the first rural women's short course was held at the University June 18th to 22nd, 1923. About 250 rural women attended. This was many more than was at first anticipated. The course was a great success.

Daily class work was given in clothing, foods, household management, canning, home furnishing, health, home dairying, millinery, and poultry. All of the classes were large, showing the interest of the women in these subjects.

The genuine enthusiasm and interest shown by these women could not but impress anyone with the progress and possibilities of this great work among our women. It is hoped to continue the short course each year.

THE SECRETARY OF THE MONTGOMERY COUNTY PIG CLUB

Girls' Club Work.

While the girls' club work is a coordinated part of the home demonstration work, yet in itself it offers wonderful opportunity for development in the State. The training of our rural girls and inspiring them for leadership in the future means more for country life than any other single objective.

More than 2,600 girls have pursued the definite programs of work in the various counties. These programs include: (1) the development of the 4H club program; (2) the club demonstration teams; (3) the affiliation of girls with women's work; (4) local leadership work.

Miss Dorothy Emerson, in charge of girls' club work, reports a growing interest in club work. The exhibitions and demonstration work in sewing, bread and cake making and other projects at our county fairs, have attracted wide attention.

Miss Emerson was assisted in camp work by Miss Laura Amos, who has been an outstanding girls' club member and who now is attending the University.

The home demonstration agents held seven girls' club camps during the summer. These camps furnished an excellent opportunity for group instruction and inspirational work.

While we sustained a change in the personnel of the leaders in this work during the year, yet splendid progress has been made in impressing upon the State the importance and value of girls' club work.

Household Management.

The professional side of home making has a strong appeal to the homemaker of today. She is giving more thought and time

CASTERS AND A LINOLEUM COVER ADD TO THE USEFULNESS AND CONVENIENCE OF THE KITCHEN TABLE

to the efficiency of home making. She wants to be a home maker and not a housekeeper. To be an efficient home maker two very important things in the administration of the home are to be considered: (1) Organization of household work: (2) The financial administration of the income.

Mrs. Marion C. Bell, specialist in this work, reports far-reaching results accomplished in the home management project. This work especially appeals to the women's clubs as offering definite means of improving their homes.

Clothing and House Furnishing.

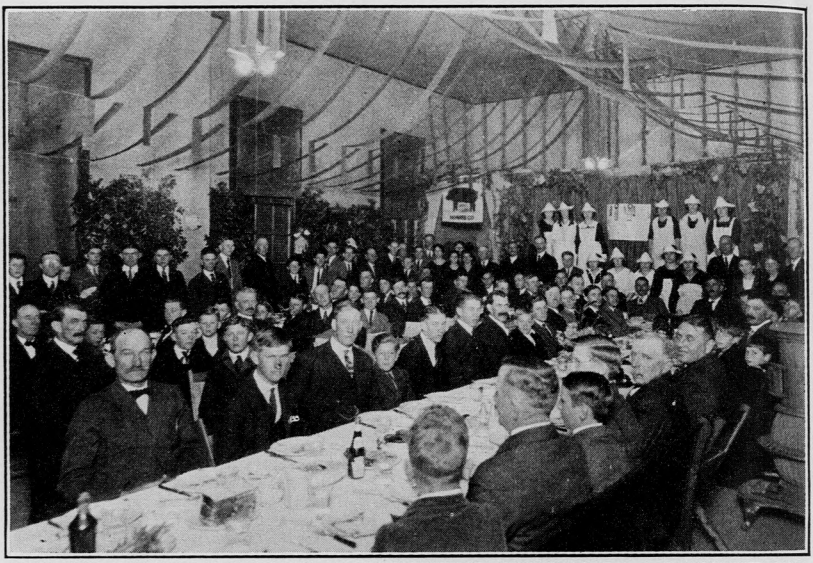
Miss Bertha Knight, specialist in this project, reports an unusual interest among rural women in clothing and house furnishing. Many clubs elected definite goals and the encouraging feature of this plan is that many of the clubs exceeded their goals and accomplished more than was at first thought possible. Twelve counties worked out this type of program with good results. The specialist, in company with the home demonstration agents, carried on the demonstrations at club meetings and in rural homes. Local leaders have been trained in each project so that they will be able to assist their communities. This work has been the means of saving thousands of dollars for our rural women.

In concluding the discussion of the women's work, I am pleased to report a greater interest, more definite results and an enthusiasm in the State for its development that has not heretofore been in evidence. Following is a brief summary of the women's and girls' work:

Total number of farm visits made in conducting extension work				895
Total number home visits made in conducting extension work				3,360
Number office calls relating to extension work				5,697
Number letters written				9,412
Number extension articles written by agents and published in local papers				575
Number of method demonstrations conducted				2,275
Number of result demonstrations conducted				2,594
Number of meetings at demonstrations				1,082
Attendance at meetings				17,796
Number of other meetings in relation to projects				286
Attendance at other project meetings				122,436
Number members enrolled in food and nutrition work	Women,	2,019;	girls,	616
Number members enrolled in clothing demonstrations	Women,	3,223;	girls,	1,472
Number members enrolled in household management and home furnishing demonstrations	Women,	819;	girls,	395
Number members enrolled in home health and sanitation	Women,	201;	girls,	255
Number members enrolled in horticultural demonstrations	Women,	162;	girls,	25
Number members enrolled in home dairy demonstrations	Women,	4;		
Number members enrolled in poultry demonstrations	Women,	194;	girls,	189

BOYS' CLUB WORK.

Boys' club work has made substantial progress during the past year. With the development of community organizations, such as the Farm Bureau locals, Granges, etc., there evolved programs



HOWARD COUNTY CLUB BOYS INVITED THEIR FATHERS TO A BANQUET TO TALK ABOUT PIGS.

of work. Obviously it was desirable that the boys' club work be a part of an organization program. This led to a change in the objectives of the work from the plan based on small isolated projects, to one that permitted the boys' club work to be essentially a part of the community program for assisting in solving recognized problems and in demonstrating better practices in agriculture.

The following were the essentials of developing the work with the Extension program for a community or county:

(a) Community responsibility.
(b) Local leadership.
(c) Worth-while demonstrations.
(d) Well-defined programs.
(e) Correlation of junior demonstrations with adult or community project.
(f) One project clubs.
(g) Adequate means of measuring accomplishments.
(h) Definite club goals.

In this plan the five major objectives to be emphasized, both through organization and by publicity, were:

(a) To reach a larger number of young people in club work per county agent.

(b) To secure a larger percentage of completed demonstrations and more accurate records.
(c) To develop an interest in agricultural demonstrations of larger scope.
(d) To develop the demonstrations on a community extension basis and apply the results in such a way as to bring about their application in the community.
(e) To establish the relationship between junior demonstrations and adult extension projects and co-ordinate the work of both in such manner as to provide for well balanced programs of community, county and state extension work.

Mr. E. G. Jenkins, in charge of boys' club work, reports that more than eighty per cent of the work organized under these plans before the beginning of the crop year, can be considered successful. No clubs organized on a community basis have discontinued. In Howard county, nine Farm Bureau locals functioned with a community program, and club work became an integral part of seven of these programs.

The boys' club work furnishes the very best means of introducing modern methods of agriculture into a community. We are indebted to the farm organizations for their cooperation with the agents in pushing this work in all parts of the State.

Harford county has been outstanding in the interest it has developed in club work. Anyone visiting the Harford county fair could not but be impressed with the prestige which club work has gained for itself in that county.

Junior Extension work has found a place in programs of Statewide organizations and is now a part of the discussion wherever agricultural activities are considered.

The Maryland State Bankers' Association opened its program with a very able report on club work by Judge Frank I. Duncan. As a result the Bankers' Association voted over $1,000 for inspirational purposes in club work the past year.

Outstanding Activities.

As mentioned in the introduction of this report, an outstanding accomplishment in boys' club work was when our State Dairy Judging Team won the national contest at the National Dairy Show and then won the international gold cup at the Royal Agricultural Show in England. The team was composed of Richard Wills, Hubert Snodgrass and Fendall Cushing, all of Harford county. The team was accompanied to England by B. B. Derrick, county agent, and P. W. Chichester, assistant boys' club agent. Thus Maryland won the international cup for two successive years.

It was due to the generous support of the dairy breeders, farm organizations, bankers' association, Governor Albert C. Ritchie and others that we were able to raise sufficient private funds to

A MONTGOMERY COUNTY CLUB BOY OWNS THIS GRAND CHAMPION HOLSTEIN HEIFER.

finance these trips. However, it has been a fine project for the boys' club work and has brought favorable publicity to the State.

Timonium Fair: Dairy cattle and swine exhibits were unusually excellent this past year. The state-wide dairy judging contest at this fair has aroused much interest throughout the State.

National Dairy Show: Harford county again won the State contest and the privilege of representing the State at the National Dairy Show. However, we did not win first place this year.

Club Week: Mr. Jenkins reports that never has club week at the University been so inspiring and helpful as during the past year.

Camp Vail: Four boys and five girls gave demonstrations at the Eastern States Exposition, at Springfield, Mass. Not only were their demonstrations counted among the best, but the work of these club members in the exhibit booths, where they described club work to the throngs visiting the show, received universal praise.

Measuring Accomplishments.

Measuring accomplishments of the five main items which were to be emphasized in 1923, the statistical reports seem to indicate that the community extension plan toward which we are working, is of much more economical and demonstrational value than the school plan on a competitive basis and that this plan will strengthen a State Extension program in a steadily increasing degree.

Mr. Jenkins has been ably assisted by Mr. P. W. Chichester in supervising club work in the State.

AGRONOMY.

On the farm crops depends very largely whatever measure of prosperity attends the agriculture of the State. The past few years have been a severe test of the ability of Maryland farmers to adjust themselves and their farm operations to new and trying conditions. In this readjustment to make the low prices of farm products meet the higher prices of purchased products, the farm crops of the State have demanded careful attention.

While there have been no radical changes in farming practices or methods of production, some reductions have taken place in the acreage devoted to the major cereal crops—corn and wheat—and more effort has been made to secure the maximum returns from the reduced acreage. This has been entirely in line with the practice recommended by the Extension Service. It has resulted in farmers giving more attention to high yielding strains of wheat and corn, to better cultural methods for these crops and to more interest in legume and pasture crops.

A MONTGOMERY COUNTY CLUB BOY OWNS THIS GRAND CHAMPION HOLSTEIN HEIFER.

Reduction in Cereal Crops.

Corn continues to hold first place among the farm products of the State. It was planted during the past year on 642,000 acres and while this represented no reduction from the previous year's plantings, it shows a decrease of 3,000 acres since 1921 and of 8,000 acres since 1920. Wheat that in 1920 was planted to 598,000 acres, last year was harvested on but 543,000, a reduction of 55,000 acres. While this reduction in acreage of the two major cereal crops has naturally followed as a reaction from the peak production of war times and the tightening of the labor situation, it is a healthy tendency in the agricuture of the State. Acreages formerly devoted almost exclusively to these two crops are now being planted to legumes or being turned into pasture fields.

Extension work in agronomy during the past year, as reported by Mr. F. W. Oldenburg, specialist in agronomy for the Extension Service, has been devoted to increasing the use of pure-bred strains of wheat and corn, to making seed selection a more general practice, to increasing the use of lime on Maryland soils, to enlarging the acreage of legume crops both for hay and for green manure and to arousing interest in the use of high analysis fertilizers.

Seed Selection Improves Corn Yield.

In the case of the corn crop, seed selection with reference to root rot has been continued as one of the important features of the year. Demonstrations of this kind conducted in 1921 and 1922 showed the value of this work. Carefully selected seed that shows no external signs of root rot disease has given higher yields in almost every case where an opportunity has been offered to compare it with yields from unselected seed. Demonstrations during the past year were conducted on 65 farms in 19 counties. Comparative yields from nineteen demonstrators showed an average production from the selected seed of 65.36 bushels per acre in comparison with an average production of 57.83 bushels from the unselected seed, an average increase of 11.5 per cent. In addition to these actual demonstrations, hundreds of farmers were shown the methods used in selecting seed corn free from evidences of root rot at field meetings in many of the counties.

Purebred Corn Planted.

The advantages of purebred strains of corn have likewise been stressed in the work of the year with good results. Special meetings devoted to this subject were held during the winter months in a number of counties, including Allegany, Carroll, Howard and Frederick. In each case farmers were asked to bring samples of their seed corn to the meeting and these were compared with

purebred strains. As many farmers as possible were persuaded to try the purebred seed and to compare results with their own selection. In Frederick county enough purebred corn was purchased by farmers to plant 1,500 acres and in many other counties there was increased use of good seed. Publicity attending the winning of twenty-two prizes by Maryland corn growers at the International Grain and Hay Show at Chicago also had its effect in arousing interest in purebred corn, while demonstrations at county fairs in the State have exerted a constant influence in this direction.

Last year Maryland corn growers succeeded in winning thirty-four prizes at the International Grain and Hay Show and the awards were distributed to six counties, indicating not only that more growers are being interested in purebred corn, but that it is being planted and successfully grown in more counties of the State

Five-acre contests also were undertaken during the past year as demonstrations in cooperation with the Maryland Crop Improvement Association which offered medals for high yields. The highest yields reported were from Harford county where 109.09 bushels per acre were secured from Johnson County White and 109.02 bushels per acre from Reid's Yellow Dent. There were forty-nine of these five-acre plots in Harford county alone.

Better Wheat Being Sown

The production of better quality wheat as well as increased yields per acre have been among the subjects emphasized during the year in work devoted to the wheat crop. The planting of fewer varieties and the more general use of the higher yielding strains in the State have been recommended. Progress along this line has been made during the year by distributing seed wheat in fairly large quantities to growers who agreed to plant it and distribute the resulting crop to other growers in the community. This work in cooperation with the Experiment station and the Maryland Crop Improvement Association has brought splendid results and the demands for certification of seed wheat during the year taxed the time of every available agronomist. More seed wheat of good quality was grown in the State the past year than ever before.

Garlic and other seed impurities which are responsible for lowering the price on a large part of the wheat produced in Maryland have been given attention both directly and indirectly. Directly the farmers of the State have been advised to plant only clean wheat, to resort to fall plowing if necessary and to follow the corn crop with soybeans instead of wheat. Indirectly the work that has been done in connection with a more extensive acreage of soybeans has had its effect in the production of cleaner wheat and larger yields.

While not so much importance attaches to the production of barley and oats in Maryland, both of these cereals have been much discussed by farmers of the State as substitutes for wheat. In some cases these crops have been substituted successfully but usually farmers have been advised to plant them only on a moderate scale.

Legumes Increase.

Every effort was made during the year to increase the production of legumes. Farmers were shown the advantages of legume hay in a dairy cattle ration, the improvement to soil fertility that follows the production of legumes and the possibilities of soybeans as a substitute for wheat. In several counties where Farm Bureau locals were functioning, local leaders were appointed and legume production was encouraged as a community or county enterprise. In Montgomery county where the project was undertaken in this way, a thousand bushels of soybeans for seed were purchased in one pooled order. In other counties the project was undertaken as a community enterprise by the county agent. Efforts also have been successfully made to induce increasing numbers of farmers to grow soybeans for seed, an important factor if the production of this legume is to increase as rapidly as it should.

Under a cooperative arrangement inoculation for legume crops was supplied by the Experiment Station during the year to demonstrators in the following amounts: 7,249 tubes to 704 soybean demonstrators; 1,860 tubes to 433 alfalfa demonstrators; 270 tubes to 35 cowpea demonstrators; and 737 tubes to 137 demonstrators of other legume crops.

Lime and Fertilizer Work.

The specialists report that lime demonstrations begun two years ago in cooperation with the Eastern Division of the National Lime Association and the Soils Department of the Experiment Station have been continued. Added interest in the use of lime and its need on Maryland farms resulted from the tour of the Soil Improvement Special which was operated during August by the Baltimore and Ohio Railroad, the manufacturers of lime and the University of Maryland. A more efficient use of fertilizer in the State also is expected to result from the adoption of twelve standard fertilizer formulae for Maryland. These twelve formulae are sufficient to meet the crop needs of the State and are recommended to replace the many that formerly were commonly used.

ANIMAL HUSBANDRY.

Livestock production in Maryland, although overshadowed in value by the crops of the State, is nevertheless an important factor in the agriculture of a State so extensively devoted to diversified farming.

At the outset of the past year Maryland showed a marked tendency to expand its livestock production. At that time there were in the State 136,000 horses valued at $11,696,000; 33,000 mules valued at $3,663,000; 194,000 dairy cattle valued at $11,640,000; 101,000 cattle other than dairy cattle valued at $3,555,000; 93,067 sheep valued at $698,000; and 299,000 swine valued at $3,887,000. Increases in the number of all of these domestic animals except horses and mules were noted. Their value, too, was slightly higher than the previous year and totalled $35,139,000.

Undoubtedly the increase in livestock at the beginning of the year 1923 was due to the low prices prevailing for many of the major farm crops. In many cases farmers chose to feed their surplus crops of hay and corn to farm animals rather than sell them outright at low prices. Market quotations for livestock, however, were such as to call for the most careful management if such ventures were to prove successful.

Economical Production Essential

Mr. B. E. Carmichael, animal husbandry specialist for the Extension Service, points out that the chief problems during the year had to do with the use of better livestock and better methods in the production of animals and animal products. Prevailing conditions made it imperative for farmers to produce at minimum costs and to market at maximum prices if any considerable profit were to be derived from livestock during the past year.

It has been the aim of the Extension Service, therefore, in prosecuting its work in animal husbandry, to acquaint farmers of the State with the many factors involved in the economical production and efficient marketing of livestock. Mr. Carmichael reports that this has been accomplished by conferences with county agents, personal advisory visits to many farms, addresses on livestock subjects at numerous meetings, by judging demonstrations at community shows, by demonstrations by farmers and junior club members, by exhibits at county fairs, by newspaper articles and by promoting conferences of livestock growers.

More Interest in Beef Cattle.

The winter fattening of beef cattle, a valuable side line on many farms in the State, has been given considerably more attention in recent years than formerly. The cooperative purchase of feeder cattle in 1922 proved a successful venture and was repeated in 1923 with the Maryland Agricultural Society—the Maryland Farm Bureau Federation sponsoring the enterprise. On the average, better cattle have been brought into the State as a result

of this endeavor and as they have been distributed to a number of the counties where winter feeding is rather extensively practiced, farmers have had an opportunity to observe results. Not only have better cattle been purchased as a result of this cooperation, but a more uniform grade has been produced at the end of the feeding period, with such advantages in marketing as that implies.

To the interest aroused in beef cattle by these cooperative efforts, must be added the stimulus of a conference of Breeders and Feeders of Beef Cattle held last January in conjunction with the annual meeting of the Maryland Agricultural Society. A permanent committee with the promotion of the beef cattle industry as its object was appointed at that conference and has served throughout the year. A program for a similar conference to be held in Baltimore in connection with the annual meeting of the Maryland Agricultural Society—the Maryland Farm Bureau Federation has been arranged and every effort will be made to make these conferences annual events of interest and value. In connection with the cooperative purchase of feeder cattle during the year, a series of meetings were held in different counties for the purpose of acquainting farmers with the project and to discuss the subject of proper feeding. These meetings were held under the auspices of the State and county Farm Bureaus and were productive of much good.

Proper Feeding Stressed.

Unquestionably there is opportunity in the State for an expansion of the beef cattle industry. Efforts of the Extension Service, however, have been devoted to bringing this about in a conservative manner by first acquainting farmers with the essentials of profitable feeding. The use of silage, a more generous allowance of legume hay and the employment of high protein concentrates in connection with the usual corn and roughage ration are features in economical feeding of beef cattle deserving of more general adoption. These subjects have been stressed in the work of the year.

While a shortage of hay, due to a partial failure of the hay crop, operated to reduce the number of cattle on feed during the year, there is every reason to believe that new interest in the production of beef cattle has been aroused and that the industry is making progress throughout the State.

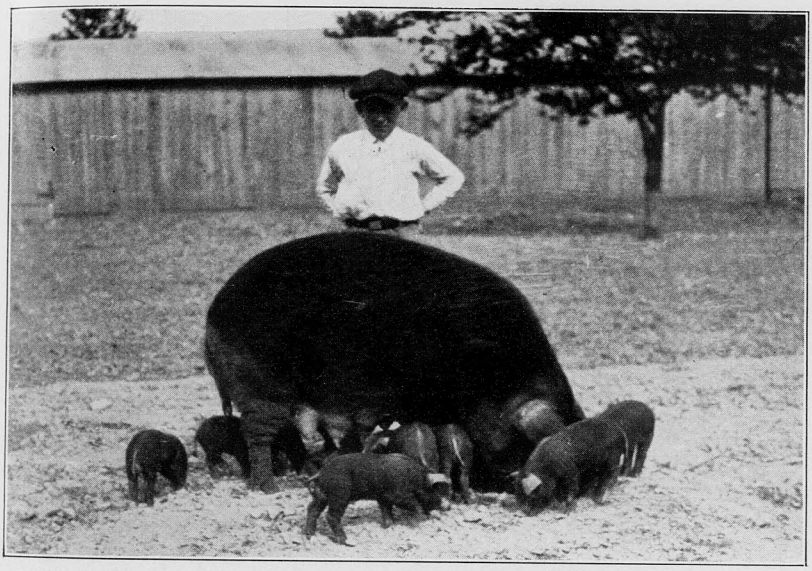
The Swine Industry.

The swine industry in Maryland stands in need of considerable improvement. While it is undoubtedly a fact that steady progress is being made in convincing farmers of the value of purebred

hogs and in the wisdom of giving them better care, the production of swine in the State is far from yielding its maximum returns.

There are good herds of practically all breeds of swine in the State. Club boys, too, have been responsible for the introduction of numerous purebred hogs into the counties. The average farmer, however, has been slow to avail himself of these good sources of hogs, chiefly for the reason, perhaps, that he has regarded his swine merely as consumers of refuse crops.

For the same reason it has been difficult to interest the average farmer in methods of feeding that produce maximum results.



CLUB WORK IS INCREASING THIS KENT COUNTY BOY'S POSSESSIONS AND EXPERIENCE.

The value and economy of green forage crops for hogs have been constantly emphasized. More and more farmers are adopting the practice of providing pasture crops for their hogs during at least a part of the year. In Allegany county, during the past year, a very valuable series of demonstrations in the rotation of crops to provide hog pasture for practically nine months of the year was conducted in cooperation with the county agent and the farmers concerned. The recommendations of the specialist and the county agent were carefully followed with results highly pleasing to the demonstrators and interesting to nearby farmers.

These demonstrations involved another important feature of swine production which is being stressed in the State; namely, the establishment of a single breed in a community. While the dem-

onstration in Allegany county is of too recent orign to show results in this respect, the advantages to a community of establishing a reputation for a single breed and of being able to produce a uniform type and quality of market hogs, are apparent.

While efforts to increase the number of purebreds and to secure the adoption of better feeding methods have featured the swine production work during the year, attention has been given to better housing methods, to the control of parasites and diseases, and to a more general use of labor saving equipment.

Sheep Prove Profitable.

Lambs and wool, two valuable products of the sheep industry, have not only been bright spots in the livestock industry during the past year but have stood out prominently in the entire field of agriculture by virtue of the prices they have commanded. Both lambs and wool have been profitable at prices prevailing during the past year to farmers who have handled them efficiently.

Because of the good, nearby markets, there are splendid opportunities for Maryland farmers in the production of early lambs. The Extension Service has endeavored during the year to stimulate the production of early lambs and to interest farmers in meeting the demands of the market for select quality by castration and docking. The use of purebred rams in the production of uniform market lambs has likewise been emphasized and cooperative marketing has been encouraged wherever there was a possibility of its success.

The grading of wool and the proper handling of the fleece for best prices have been major features of the work in connection with this product. Wool pools have been encouraged and have been successfully handled in a number of counties, returning to the producers considerably better net prices than would have been possible through individual sales. In several counties the expedient of having wool made into blankets has again been undertaken successfully. Prices secured through pooling of the product, however, have been sufficiently satisfactory to make this unnecessary as a general practice.

Hog Cholera.

In the control of hog cholera, particular effort has been made during the past year to reduce the number of primary outbreaks or new sources of infection in the State. Early in the year a campaign of publicity was outlined and to emphasize the importance of proper preventive measures in the control of the disease, the year was designated as "Hog Cholera Prevention Year." More than the usual amount of publicity was given to explanations of ways in which the disease may be introduced and spread. Results

as reported by Dr. I. K. Atherton, inspector in charge of hog cholera control work in the State, have been satisfactory, the number of outbreaks being 506 for the year ending November 20, 1923, in contrast to 593 for the same period of 1922. This represented a decrease of 15 per cent.

The most gratifying results, however, are to be found in the number of secondary outbreaks. There were but 90 secondary outbreaks during the year as against 232 for the previous year, a decrease of 61 per cent.

HORTICULTURE.

It is a satisfaction to be able to report marked improvement in the fruit industry in Maryland during the past year. Not only is this improvement noted in the largest fruit crop in the past three years but in the greater attention which growers have been directing to better methods of production and to more careful grading and packing.

For two seasons preceding the past one, the fruit industry of Maryland has suffered greatly because of late spring frosts and freezes. Conditions during the past year, however, have been more favorable with the result that the crop has been considerably above the five-year average. Statistics show an increase of 136,000 bushels of peaches and 800,000 bushels of apples over the crop of the previous year while the commercial crop of apples was approximately 180,000 barrels more than that of 1922.

Must Meet Competition.

Competition from outside sources has made it necessary for the Maryland grower to produce fruit of higher quality and to give more consideratoin to a careful grade and pack. The problems involved in the production and marketing of good quality fruit have been the major ones confronting the Maryland grower during the year. To them has been added an increasing difficulty in securing good labor at reasonable wages.

Mr. S. B. Shaw, specialist in horticulture for the Extension Service, reports that efforts during the past year have largely been directed to a solution of the two leading problems—better production and better marketing.

That growers are realizing more fully the necessity of improving their methods of production, grading and packing is evidenced by the increasing number of requests received through the county agents for specific instructions and advice. According to records compiled in cooperation with the county agents there are approximately 697 commercial orchards in the State, of which 86 per cent are being reached directly by the Extension Service through the efforts of the county agents and specialist in horticulture.

Mr. Shaw reports that he has carried on his work through 59 formal orchard demonstrations in 16 counties, 190 advisory orchard demonstrations in 20 counties, 71 orchard field demonstrations with a total attendance of 533 growers, and through organizations in existence or started during the year for the promotion of the industry.

Proper Spraying Stressed.

While spraying has become a fairly general practice among Maryland fruit growers, it seemed necessary during the past year to inaugurate a service designed to secure more effective results. Growers, who realized the importance of applying the proper spray at the proper time, expressed a desire for more specific information along this line. In order to help growers secure more satisfactory results from spraying, a combined weather forecast and spray service was inaugurated in cooperation with the specialists in Entomology and Plant Pathology, working in cooperation with the county agents and the U. S. Weather Bureau. During the latter part of April and the first of May, daily forecasts were received from the Washington office of the Weather Bureau. Field observations made by the specialist in Entomology provided specific information regarding the development of insects and diseases. The weather forecasts combined with the recommendations of the Entomologist were telegraphed each morning for a period of three weeks to the county agents in four of the leading fruit growing counties and through them disseminated to between three and four hundred commercial growers. This service proved helpful in the four counties where it was tried. In addition to this service, spray service cards were supplied to all county agents in the State and were mailed by them to approximately 450 growers.

Thinning Advice Given.

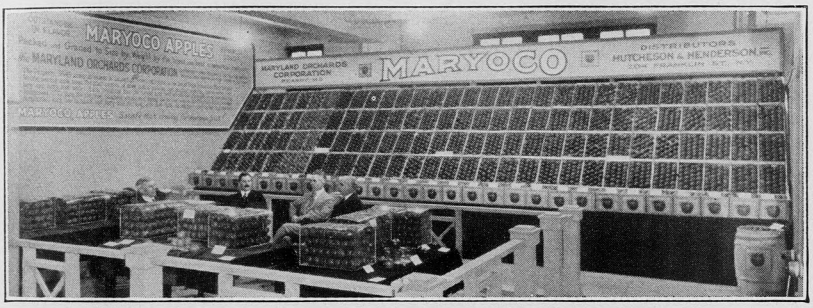
An exceptionally heavy set of fruit and an unusual condition of drought extending in a number of sections over a period of nine weeks at a time when moisture was most needed for the development of a crop, made necessary special efforts to induce growers to thin their fruit. Field meetings were held, special letters were written and press notices were sent out with the result that many growers who followed the advice given were enabled to carry their crop through to a normal development.

One of the most striking examples of success resulting from following instructions of the Extension Service as regards spraying and thinning was the experience of the Maryland Orchards Corporation. This company, owning an orchard of 50,000 trees in Allegany county, produced and marketed its first crop of fruit. Cultural directions, including spraying and thinning, were followed throughout the season with the result that for the first

time in the history of Maryland's fruit industry a large commercial crop of box quality fruit was produced, packed and profitably marketed. This crop of 75,000 boxes was disposed of entirely in New York City.

Maryland Fruit Sells High.

An exhibit of this fruit attracted attention at the Eastern Apple and Fruit Exhibit in New York City during the week from November 3rd to 10th. The boxes on display were taken from cars shipped to the market to be sold. Notwithstanding the fact that the shipments of apples to New York City were exceptionally heavy during that month, fruit from the Maryland Orchards Corporation was bringing from $2.50 to $3.50 a box. At the same time splendid fruit from the Northwest section was



THE COMMERCIAL PACK OF BOXED APPLES OF THE MARYLAND ORCHARDS CORPORATION WAS GOOD ENOUGH FOR THIS EXHIBIT.

selling as low as $1.25 to $1.50 a box, indicating that it is possible to produce fruit in Maryland which will successfully meet competition from any section of the country, provided it is properly grown and packed.

Realizing the fact that the grading and packing of fruit is equally as important as production, an endeavor was made during the year to secure the establishment of central packing houses and thus bring about a better standardization of pack at a reduction of cost. In cooperation with the specialist in marketing, units of this kind have been successfully developed in Washington and Frederick counties. In addition, two central packing houses were put in operation in Washington and Carroll counties where the crops of several growers were handled through a single plant but not sold cooperatively.

State Horticultural Society.

Mr. Shaw has continued during the year as secretary of the Maryland State Horticultural Society and in that capacity has issued a monthly news letter containing timely information to fruit growers. The society has held several important meetings during the year, among them a conference of York Imperial apple growers attended by representatives from Maryland, Pennsylvania, Virginia and West Virginia.

Of the seventy-one field meetings held during the year, fifty were demonstrations in pruning, eleven were devoted to the proper selection, grading and packing of fruits and vegetables, two were for the purpose of comparing the efficiency of various types of spray rods and guns, one concerned the better production of asparagus, and the balance were devoted to demonstrations in thinning of fruit and orchard heating.

Mr. Shaw judged fruit exhibits at eighteen community shows and fairs during the year, prepared numerous articles for the press and completed a market survey to ascertain the varieties of apples most popular with the consuming public.

VEGETABLE AND LANDSCAPE GARDENING.

Few crops grown in Maryland have demanded more careful attention and more vigorous work of the right kind during the past few years than the tomato crop grown for canning purposes. The very fact that for many years Maryland has held first place in the quantity of tomatoes packed, would indicate the importance of the industry to the State.

The development of important canning centers in other states, however, has brought both canners and growers face to face with a competition that requires a revision of methods if the State is to retain its supremacy in the tomato canning industry. It is easily possible for this entire industry to be lost to Maryland unless growers and canners alike prove willing to cooperate in measures designed to improve conditions.

Work with Tomatoes.

During the year 1922 a step in the right direction was taken in Cecil county where a number of growers were induced to cooperate and produce tomato plants for their requirements in a single community plant bed. The bed was prepared, seeded and handled entirely according to directions of county agent A. D. Radebaugh. Results from these plants after they were set in the field were sufficient to confirm former experimental evidence regarding the value of vigorous well-grown plants from good seed. Not only so, but the centralized plant bed proved a thoroughly practical method of producing such plants.

The possibilities of the centralized plant bed in improving the tomato growing situation were at once apparent. When its results were made fully known, the Tri-State Canners' Association agreed to appropriate $1,000 toward an extension of such work in Maryland, New Jersey and Delaware. The majority of this money was appropriated for use in Maryland. In addition, the University of Maryland Extension Service agreed to publish a bulletin setting forth the methods employed in the Cecil county demonstration.

Tomato Bulletin Published.

The bulletin, "More Tomatoes from Fewer Acres," was issued and proved popular from the start. The first issue of 5,000 copies was soon exhausted and a reprint of 2,000 copies barely met subsequent demands.

Mr. W. R. Ballard, specialist in vegetable and landscape gardening for the Extension Service, who was associated with the plant bed project from the outset, and Mr. Radebaugh,

TOMATO PLANTS PROPERLY GROWN IN THE PLANT BED FLOURISHED IN THIS HARFORD COUNTY FIELD.

county agent in Cecil county, were in charge of promoting the plant bed work during the past year. Through publicity and public meetings interest was aroused in the tomato growing counties and beds were established wherever the plan seemed feasible. Thirty-five beds in thirteen counties, ranging in size from an eighth of an acre to one and a half acres, were undertaken and produced for growers of the State approximately seven and a half million plants. In a majority of the cases the beds represented the cooperative efforts of both growers and canners.

Other Growers Profited.

Not only was the quality of the plants thus grown above the average, but growers producing plants for their own individual use became acquainted with and followed the methods outlined for the community beds thereby securing better plants than usual. Despite a most unfavorable season, enough good plants were produced in the State to meet the requirements of growers although it is estimated that such would not have been the case had it not been for the community beds.

While definite field results were not obtained from some counties, the general results were sufficiently good to assure the practical character and success of the community plant bed as a real contribution to the tomato growing industry in Maryland. Increased field yields from community bed plants where they were obtained, ranged from one to eight tons per acre over yields from ordinary plants. The community bed as one step toward the solution of the problem of lowering the cost of tomato production has been an outstanding example of the value of Extension Service work during the year.

Good Seed Saved.

An important development of this work has been the increased interest of growers in selecting and saving good seed. In several counties, particularly Harford, large quantities of seed have been saved to be planted the coming year. In Cecil county the seed of several strains of the Greater Baltimore tomato were grown during the year for comparison in quality by county agent Radebaugh. Seed from each of these strains has been saved for further trial, the effort being to develop a more desirable type of canning tomato.

Landscape Work.

While a very considerable amount of Mr. Ballard's time has been devoted to the tomato project, interest in the various phases of landscape gardening has continued unabated during the year. Thirty-three requests for landscape demonstrations were received and were given the specialist's attention. Of the demonstrations conducted, twenty-two were on home grounds, six on school grounds and five were of a miscellaneous character.

Completed plans for eighteen of these demonstrations were supplied by the specialist and in the other cases preliminary sketches were submitted. In addition ten home owners were given advice as to methods of improving their grounds and twenty-one public meetings with a total attendance of 1,715 persons were addressed.

The specialist assisted in planning a flower growing contest in Washington county, served as judge for a flower garden contest in Baltimore, staged an educational exhibit at the Timonium Fair, served as secretary-treasurer of the Maryland Vegetable Growers' Association during the year, and judged products at fourteen shows or fairs.

DAIRY HUSBANDRY.

No other branch of the State's agriculture has been quite so important during recent years as dairying. In comparison with prices for most other farm products, prices for fluid milk have remained comparatively stable. The result has been a steady expansion of the dairy industry throughout the State, an expansion that probably has been more marked during the past year than during any other like period.

A new receiving station operated by the Maryland and Virginia Milk Producers' Association has been opened in Frederick county; two receiving stations have been established in Dorchester county; a new producing territory for the Philadelphia market has been opened through a receiving station at Hagerstown; a cooperative cheese factory with possibilities for further development has been in operation in Garrett county; and the cooperative creamery at Waldorf, serving the Southern Maryland territory, has continued to expand its operations thus affording a market for a steadily increasing quantity of milk.

Dairy Marketing Organization.

In addition, the three large cooperative dairy marketing associations operating in the State have continued under successful management and have handled increasing volumes of milk. These organizations have likewise been important factors in stabilizing the markets for milk. A spirit of cooperation has marked their dealings with city distributors during the year, and with the exception of the Maryland and Virginia Milk Producers' Association in the Washington market there were no disturbing disagreements. In the latter case a compromise finally settled existing differences without imparing the effectiveness of the organization.

Feed Purchased.

Dairymen during the year participated in the cooperative purchase of approximately 10,000 tons of ready mixed dairy feed, thus effecting very substantial savings in the cost of feed. The feed pool was under the direction of the Agricultural Corporation of Maryland and in making it effective, the Maryland Agricultural Society—The Maryland Farm Bureau Federation and the Extension Service cooperated. Approximately two thousand dairymen participated in the deal.

Mr. J. A. Conover, specialist in dairying for the Extension Service, reports that his work during the year has been largely directed to promoting a more general use of purebred animals, particularly purebred sires, to the discovery and elimination of the low producing cow through the establishment of cow testing associations, to creating a better understanding of efficient feeding methods and to assisting in developing new dairy sections in the State.

Club Work in Dairying.

In promoting interest in purebred animals, members of agricultural clubs have taken a leading part by introducing into many counties of the State purebred calves which they have cared for according to approved methods. In selecting these calves for club members, in advising their young owners how to care for them, in training judging teams and in assisting with judging contests, the specialist has rendered effective service.

Purebred Bulls Introduced.

One of the most successful methods of arousing interest in purebred animals was the mock trial of a scrub bull, followed by a sale of purebred bulls, which was staged in Howard county during the year. The mock trial gave ample opportunity to bring out the advantages of purebred animals in comparison with scrubs and the novelty of the event attracted a large crowd. Twenty-two purebred bulls were sold at public auction following the trial, all of them remaining in the county and seventeen of them going to dairymen who formerly had never owned a purebred bull. In addition, there have been two other sales of purebred bulls in the State which were responsible for the distribution of good sires in the counties where they were held. Two sales of Jersey and Guernsey cattle and one of Holsteins have been held in the State during the year, thus advancing this phase of dairy improvement work.

Cow Testing Associations.

Considerable advancement has been made in the work of interesting dairymen in the value of cow testing associations. Four new associations have been formed during the year; one in Montgomery, one in Harford, one in Howard and one in Anne Arundel counties. The old Harford county association has been re-organized so that two are now operating successfully in that county. In the Baltimore county association, where records are available for a period of years, results show the gradual improvement in milk production that has taken place. In the year from 1910 to 1911, the average production per cow was 4,498 pounds

of milk and 204.2 pounds of butterfat. In the year from 1915 to 1916, the average had increased to 5,512 pounds of milk and 237.1 pounds of butterfat, while for the year from 1922 to 1923, the the average was 7,321 pounds of milk and 315.1 pounds of butterfat.

Mr. Conover reports that all associations are now in smooth operation and have the services of good testers. A monthly news letter, prepared by the specialist, has assisted in stimulating interest in the work and in keeping the members informed as to results in the different herds.

PROCRIS SNOWDROP 120156, WITH 15,487.7 POUNDS OF MILK AND 822.17 POUNDS OF BUTTERFAT, IS A WORLD CHAMPION AT TWO YEARS OLD.

Feed Schools Held.

Feeding schools, where the proper methods of balancing dairy rations have been discussed, have been held in a number of the counties of the State during the year and have proved valuable in promoting the better feeding of dairy cattle. These schools usually have been devoted to a discussion of the value of legume hay as a protein feed and to the proper supplemental feeds to be used in connection with home grown grains and forage.

During the year, particular attention has been given to sections of the State where the dairy industry is in the developmental stage. In Southern Maryland where a cooperative creamery has been established, considerable work has been necessary to improve feeding methods, the handling of cream, the construction of barns and the quality of the dairy stock. The work has shown results and may be the means of introducing a more diversified system of farming in this section of the State. The creamery has been operating successfully since May and up to December 1st had made 23,762 pounds of butter, much of which found a ready market in local territory at very satisfactory prices.

During the year Mr. Conover attended 94 meetings, delivered 75 addresses, made 23 visits to demonstrators and visited 317 farms.

Work with Organizations.

Mr. J. A. Gamble, head of the Dairy Department of the University of Maryland, serves as a part-time specialist in dairy extension work devoting his efforts chiefly to the marketing field. His work during the year has largely been in connection with the three organized dairy associations in the State which have an aggregate membership of more than 8,000 dairymen and ship annually more than $7,000,000 worth of milk to Baltimore, Philadelphia and Washington.

Educational meetings of these three associations, numerous conferences throughout the State, and meetings of the several State breed associations have made a total of 66 meetings which Mr. Gamble attended. Thirty of them were conferences and meetings called by the Maryland State Dairymen's Association and were devoted to market problems, quality of milk, transportation, etc.

As chairman of the Neutral Testing Laboratory Board, a cooperative agency for testing milk coming into the Baltimore market, Mr. Gamble reports a marked increase in a number of samples taken during the year ending July 31st. There were 72,344 milk and cream samples taken during the period, an increase of 13,000 samples over the previous year.

Improvement of Milk Supply

Efforts looking to an improvement in the quality of milk coming into the Baltimore market have been made during the year in cooperation with the Baltimore City Health Department. Several conferences of this kind have been held with the result that most cordial and cooperative relationships exist between the health authorities in Baltimore and the organized producers shipping to that market.

During the year a study of cooperative marketing of dairy products in the United States, also a careful survey of milk marketing in Maryland with special reference to the cooperative movement, have been made. This has been followed by a detailed study of the milk situation in Washington, Baltimore and Philadelphia.

Advanced Registry.

The Advanced Registry Service, carried on with breeders of purebred cattle, has greatly expanded its sphere of usefulness during the year. By means of this service the high producing animals in the pureberd herds are located and the general propagation of such throughout the State thereby hastened. A news letter has been published once each month in connection with this work to stimulate interest and keep interested dairymen informed of the number of animals of each breed on test, the records being made and to present other features of value to breeders. A summary of this work for the year shows 2,386 tests of individual cows for 24, 48 or 168 hours duration. There were 67 seven-day tests and 44 retests.

Breed Association Activities.

During the past year the Maryland Guernsey Breeders' Association has held several enthusiastic meetings for the purpose of pushing the breed. As a result of this activity, $1,000 was raised and paid into the treasury of the Eastern Breeders' Association to help defray the expenses of the fieldmen secured to work in this territory. A further activity of the association was the holding of two purebred bull sales, one at Frederick and the other on the Eastern Shore, for the purpose of introducing purebred Guernsey bulls into those territories.

The Maryland Holstein Breeders' Association has had one meeting, not so largely attended, but as a result of which negotiations are on foot to extend the influence of the organization and to provide for outstanding Holsteins for the Dairy Department at the University of Maryland.

The Maryland Jeresy Breeders' Association has not been very active during the past year but is just beginning to get under way. Two Jersey sales were held.

RURAL ORGANIZATION AND MARKETING.

Progress in both rural organization and marketing has been marked during the past year. In line with the determination of farmers of the State that efforts be made to organize a Farm Bureau in each of the twenty-three counties at the earliest possible opportunity, the progress in rural organization has been rapid.

In January 1923, six counties had been organized with a membership of about two thousand. At the present time eighteen of the twenty-three counties have been organized with an aggregate membership of approximately seven thousand. Organization drives have been scheduled in Somerset, Wicomico and Cecil, the three remaining counties on the Eastern Shore, so that only Allegany and Garrett counties, the two most westerly mountain counties, probably will be without Farm Bureau organizations by the arrival of spring.

Dr. F. B. Bomberger, who in addition to his supervisory duties as assistant director of the Extension Service, serves as specialist in rural organization and marketing, has taken an active part in promoting this organization work and in assisting both local and county Farm Bureaus to formulate programs of work and to function effectively in other ways. The cooperation of the Extension agents and the committees representing the rural people has furnished a fine example of team work. These organization campaigns have demonstrated to all concerned that the Extension agents and specialists can be of more value to them when organized than they could possibly be otherwise.

Notwithstanding the very large growth of the Farm Bureau in this State during the year, other rural organizations have not been neglected. In Allegany county extension agents and specialists have cooperated very effectively with the community organizations composing the county Farmers' Federation and with the Federation itself in carrying out constructive programs of Extension work. In Garrett county, nine local granges composing the county grange, have likewise been active in the prosecution of community and county programs of Extension work.

In the prosecution of local, county and State-wide programs of educational and social work formulated by the Grange in the State, the Extension agents and specialists have been directly and actively interested.

Marketing.

There have been most satisfactory developments in the field of marketing during the year. Not only have existing cooperatives extended their influence in the State but new enterprises have been undertaken with success. Every effort has been made to emphasize the importance of economic production and rigid standardization and grading as essential factors in the successful marketing of farm products. The accomplishments during the year are summarized by Dr. Bomberger as follows:

1. *Dairy Products:*—At the opening of 1923, the outstanding problem in connection with the marketing of dairy products in this State was the completion of the reorganization of the Maryland and Virginia Milk Producers' Association. The pooling con-

tract under which the Association proposed to operate provided that it could not be made effective until it had been signed by producers of 85% of the milk marketed in the Washington, D. C. market.

Frederick county was the weakest point and required the greatest effort to attain the desired goal. By cooperation between the Farm Bureau of Frederick county and the Maryland-Virginia Milk Producers' Association, a membership drive was carried on resulting in securing the necessary percentage of producers as members.

The pooling contract was put into effect on October 1st after what threatened to be a bitter struggle with the Washington distributors. The management of the association has been changed; the business methods are being brought to a high standard and there is prospect that the association will operate to the advantage of the producers and consumers alike. There has also been a rapid extension of the cooperative marketing of dairy products in other sections of the State.

2. *Tobacco:*—At the opening of 1923, the Maryland Tobacco Growers' Association was studying plans to increase the membership of the Association which had never been large enough to control over 50% of the crop. With the cooperation of the Maryland Farm Bureau Federation, an organization campaign was put into operation as a result of which the membership of the Association was increased to such an extent that it cont ols approximately 80% of the tobacco marketed in Southern Maryland. The Extension agents and specialists cooperated in every way with the association and with the representatives of the State Farm Bureau which conducted this membership campaign.

3. *Livestock:*—The expectation that during 1923 there would be organized a number of livestock shipping associations in Western and Central Maryland for the purpose of purchasing cooperatively feeder cattle from the western ranges and the marketing of such cattle after they had been fed has not materialized to any very great extent during the year.

Through the agency of the State Farm Bureau Federation, cooperating with the county Farm Bureau federations, a considerable number of carloads of feeder cattle were purchased in the West for members of the county organizations. With the exception of a small number which arrived with some infection which they had acquired in passage through the stock yards, these cattle were very satisfactory to the feeders.

4. *Sheep:*—The effort which was made under the leadership of the State Sheep Growers' Association early in 1923 to bring about the establishment of a State wool pool proved to be ineffective. There were, however, a number of county pools formed within the State and under their administration approximately 100,000

pounds of wool were sold cooperatively. The price received for the wool which was thus pooled ranged from five to ten cents higher than that received by farmers who sold on the open market. This cooperative activity on the part of the wool growers thus resulted in a very substantial increase in the return of this product.

5. *Fruit:*—The plan for the organization of a Western Maryland Fruit Exchange was materialized only to the extent of establishing two local packing plants. In the two local packing houses it was clearly demonstrated that through the careful grading and standardization of the product the task of marketing the product was very materially reduced while the returns from the product were considerably enhanced. The Extension agents and specialists will continue to urge the organization of community packing plants with the expectation that ultimately there will be a federation of these local units into some central agency or exchange which will serve to market their products.

6. *Poultry and Poultry Products:*—The plan of organizing the poultry producers of the State as members of the Atlantic Coast Poultry Producers' Association through the cooperation of the Maryland Farm Bureau Federation has been pushed forward steadily by the Extension agents and specialists during the past season. At present producers, representing more than 50,000 hens, have been signed up as members of the Atlantic Coast Poultry Producers' Association and this number is rapidly increasing. It is the plan of those who have charge of the movement that as soon as 100,000 hens have been signed up, branch marketing agencies will be opened in Baltimore and perhaps later in Washington. Through this cooperative method of handling the eggs of members and as a result of careful grading and standardization of the product, there has been an increase in price of from five to fifteen cents per dozen over that which had formerly been received.

7. *Truck Crops and Small Fruits:*—The largest single marketing job to be done in Maryland is to bring about some efficient method of marketing truck crops and small fruits which are produced in so great an abundance in this State. The difficulty has been to bring about coordination of effort on the part of the several districts engaged in the production of these products.

Early in 1923 a conference was called of the growers of Dorchester, Caroline, Wicomico and Somerset counties to ascertain whether plans of the growers for marketing cantaloupes, strawberries, sweet potatoes, etc. might not be coordinated so as to prevent competition of one region with another. For many reasons no effective results came from the conference other than trying out several plans of cooperation in connection with the production and marketing of several of these crops.

In Somerset county a plan of cooperation between the producer and canner of tomatoes was tried with most satisfactory results. Growers and canners agreed upon a minimum cost to be allowed to the grower for producing and to the canner for canning the tomatoes. The canned tomatoes were owned jointly and sold by consent of both parties. After paying costs the remainder was divided between growers and canners on the basis of 60% to the growers and 40% to the canner. The first year's operations have been highly successful and the plan will doubtless be given a wider application next season.

In Wicomico county there was planned also a cooperative cantaloupe production and marketing demonstration. The Tilghman Company provided seed for the melons and agreed to pack all merchantable melons grown from the seed, paying the growers a first payment of two cents per melon delivered at the packing house. The melons were then graded, packed and marketed. After paying the cost of packing and marketing, the remainder was divided between the Tilghman Company and the growers. The plan proved to be very acceptable and will probably be extended in 1924.

The Agricultural Corporation of Maryland.

The Agricultural Corporation of Maryland has been of great use to the farmers of Maryland as an agency in the cooperative purchase of farm supplies. It was expected that during 1923 plans would be matured for the reorganization of the Agricultural Corporation so as to bring it more closely into coordination with the activities of the State Farm Bureau. These plans have been matured and have been approved by the Board of Directors of both the Agricultural Corporation and the State Farm Bureau Federation. Under the plan, county Farm Bureau cooperative associations will be formed as units of the State Farm Bureau Cooperative Association which will take the place of the Agricultural Corporation and perform its functions. If this plan materializes, the State purchasing agency will have guaranteed it, as it has never had hitherto, a sufficient volume of orders to enable it to purchase in wholesale lots and thus to effect more substantial savings for the producers who have pooled their orders.

Cooperative Buying and Selling by Farmers.

Reports from county agents show that during the past year farmers in the various counties through their local or county organizations purchased farm supplies to the amount of $1,179,000 with an estimated saving of $106,261. In the same time products were sold cooperatively to the extent of $2,725,000 with an esti-

mated saving of $1,079,000. The principal commodities purchased were fertilizers, lime, seeds, binder twine, coal, etc. The principal farm products sold were dairy products, apples, truck crops, canning crops, small fruits and wool.

Investigation of Grain Markets in Maryland.

During the past summer it has been possible, through the efforts of Dr. S. H. DeVault, assistant specialist in marketing, to carry on an investigation covering the conditions and methods prevailing in the marketing of the wheat crop of Maryland. The study extended over several months and included the principal markets for Maryland wheat; facilities for receiving grain from boats and trucks in Baltimore; facilities for receiving grain by rail; quantity of grain received by rail, boat and by truck; elevator margins; difference between the price paid the farmer and the price paid on the floor of the Chamber of Commerce in Baltimore; difference between price received for grain delivered to the elevators by rail and boat and the price for grain delivered by trucks; comparative freight rates on truck, rail and water-borne grain; the exisiting evils in wheat marketing; and proposed remedies. The results of this survey, at the request of the grain marketing committee of the Maryland Farm Bureau Federation, are being published in the form of an Extension Service bulletin.

Our Marketing Needs.

For several years it has been customary to set forth as a part of this report, the marketing needs of the State of Maryland. The end of 1923 finds the needs set forth in detail in previous reports still present and considerably larger and more pressing.

Funds available at this time do not permit the employment of even one full-time marketing specialist to carry on the work of making necessary investigations into marketing conditions, disseminating market information concerning supply and demand, prices, etc.; enforcing standard grades and containers for farm products; inspecting carlot shipments of farm products at point of origin and in the terminal market; and many other problems incidental to marketing activities. To perform these functions a State supported agency is urgently needed. Such an agency would function through the Extension Service and be under the administration of the State Board of Agriculture.

Miscellaneous.

Dr. F. B. Bomberger served as president of the National Association of State Marketing Officials during the year and in that capacity had the honor of presiding over the annual convention

of the association at Chicago in December which was devoted to a discussion of cooperative marketing and city markets. Dr. De Vault also attended this conference.

POULTRY HUSBANDRY.

The poultry industry, like the dairy industry, has proved a ready source of cash income to the farmer during the past year. With cereal crops at comparatively low prices and with a constant market demand for poultry and eggs maintaining adequate prices for these products, there developed a new and growing interest in poultry production in Maryland.

Development in this industry has continued during the past year and has been manifest not only among those who have undertaken poultry raising as a commercial enterprise but among farmers generally who are now beginning to see in it a profitable side line to their regular farm operations. Because of the many favorable advantages which Maryland offers for the expansion of the poultry industry, it has been the aim of the Extension Service for many years to make the farm flock sufficiently productive to become a recognized adjunct to the agriculture of the State.

Improvement of Farm Flock.

The chief problem in connection with an adequate development of the poultry industry in the State has been the general lack of efficient management. The farm flock particularly, except in a few cases, has been far from yielding its maximum returns either because it was treated with indifference or because the necessary information regarding proper management has been lacking. Efficient marketing has likewise been neglected in many cases with the result that neither eggs nor poultry have been made to command maximum market prices.

Mr. W. H. Rice, poultry specialist for the Extension Service, reports that in prosecuting the poultry Extension work during the year considerable effort has been devoted to advancing poultry production among agricultural club boys and girls. Not only were the boys and girls given the desired instruction in proper poultry management but in many cases their results were of service in demonstrating better practices to adults. In addition to this phase of the work, farmers and farm women have been shown how to cull their flocks and induced to follow the practice and have been led to employ more efficient rations, better methods of incubation, brooding and rearing, and to devote more attention to effective marketing.

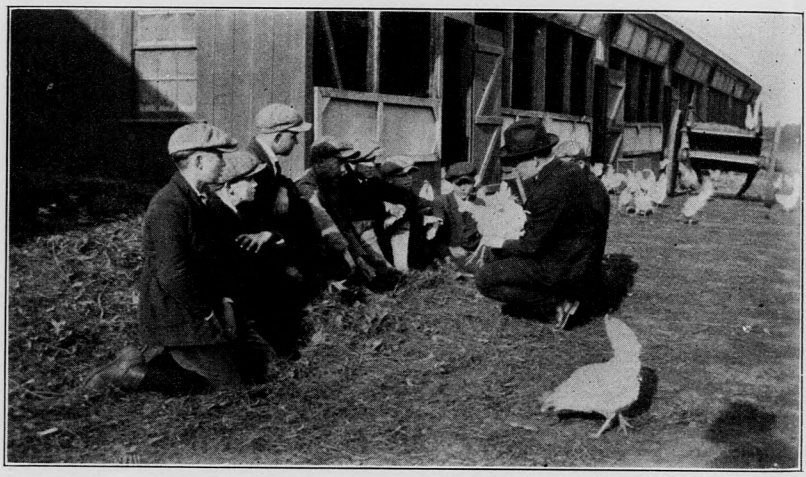
Baltimore and Ohio Railroad Helps.

A feature of the poultry work with club members during the year was the distribution of setting eggs by the Baltimore and Ohio Railroad. In this effort to start boys and girls in the poultry

business with purebred fowls, three settings of eggs were distributed by the railroad company free of charge to each of ten boys and girls in eleven counties of the State. In all 2,278 birds were hatched from these eggs, about half of which were raised to maturity. Thirty-one pens, consisting of four pullets and a cockerel each, of the finest of these fowls were shown by their young owners at the Baltimore Poultry Show.

Many Culling Demonstrations.

Culling for the elimination of the low producing hen has been a feature of the work during the year. Impetus has been given to this work in two ways. Actual result demonstrations in which culled fowls have been compared with choice fowls maintained under similar conditions have been staged in fourteen counties.



WICOMICO COUNTY CLUB BOYS LEARNING HOW TO PICK THE LAYERS.

There are in all thirty-seven of the demonstrations now under way, results of which will be obtained and given publicity. The other method employed to present this work has been through culling demonstration meetings where the methods of culling have been shown and explained to those in attendance. Fifty-seven meetings of this kind have been held with a total attendance of 889 persons. The actual number of birds handled at such meetings totalled 5,652, of which 1,622 were classed as culls. The stress laid on culling the past year and the interest it has aroused will undoubtedly contribute largely to more efficient poultry management in the State.

Proper Feeding Methods.

The subject of proper feeding has been emphasized during the year, particularly in connection with the culling demonstrations. The relation between high production and efficient feeding has been pointed out and the scientific principles involved have been explained. Particular attention has been given to the general farm flock in this connection as well as to the proper housing of fowls for satisfactory production. Several feeding demonstrations have been undertaken in counties where specific information was desired regarding comparative values of ready mixed and home mixed rations. Incubation, brooding and rearing have been subjects upon which the specialist has given advice and help during the year at numerous public meetings and by personal visits to farms.

Complete plans for the general management and development of six poultry plants have been prepared for poultrymen during the year. These plans included the necessary recommendations for houses, yards, cultivation of fields and plots, sanitary arrangements and other details.

Marketing Poultry Products.

In the marketing of poultry and poultry products, the specialist has devoted his efforts to the proper preparation of these products to meet the best market requirements, to the formation of egg circles for the cooperative marketing of eggs produced by farm flocks, and to stimulating interest among commercial poultry producers in cooperative marketing chiefly through the Atlantic Coast Poultry Producers' Association. This organization, which had become established as a cooperative selling agency in the New York market, seemed to offer a suitable outlet for eggs produced in Maryland. The Maryland Agricultural Society—the Maryland Farm Bureau Federation endorsed it and urged Maryland poultrymen to join it for the cooperative marketing of their eggs. The membership of this organization in Maryland now represents approximately 50,000 hens and all eggs which it is handling are being sold at satisfactory prices in the New York market. When the Maryland membership in the association reaches an approximate representation of 100,000 hens, it is proposed to establish a sales and distributing office in Baltimore for the purpose of improving that market and offering for sale a standardized commodity within the State.

The specialist reports that circumstances surrounding the development of the State of Maryland as a heavy producing State of poultry and eggs have never been more favorable than at present.

ENTOMOLOGY.

With the constantly increasing demand for improved quality in agricultural products of all kinds and with a greater reliance on the part of farmers in spraying and spray materials as preventatives against needless and expensive losses, the control of insect pests has assumed a place of prime importance in the State.

Many of the truck and fruit crops grown in Maryland are particularly susceptible to insect injury and the success of their culture not infrequently depends upon the ability of the grower to hold in check the enemies of plant life. Very often, too, effective control of insect pests depends as much upon the time and the method of spraying or dusting as upon the kind of material employed. It is to the trained entomologist, familiar with insect life and habits, that the grower must look for advice if he is to apply remedies effectively and at the proper time.

The spray service supplied by telegraph to fruit growers in four Western Maryland counties and by card to growers in other counties of the State, referred to under the head of Horticulture, is an illustration of the effort being made to render effective service to farmers of the State by definite and positive advice as to when and how to spray.

Field Service to Growers.

On the Eastern Shore a somewhat similar service was instituted during the year through a field laboratory at Berlin. From this station observations with respect to the codling moth, curculio and the brown rot of peaches were made the basis of definite advice to the growers in that section and of more accurate recommendations to growers in other parts of the State. Mr. E. N. Cory, State Entomologist, who serves as part time specialist in entomology for the Extension Service, reports that the work of this field laboratory will justify its continuation. The development of insects, it was found, varied so far from the normal that growers who failed to follow the advice based on observations made by the station particularly with reference to the codling moth, had severe injury from late appearing second brood codling moth worms. Where the advice of the station was followed excellent results were obtained.

Truck Crop Work.

Numerous demonstrations in the control of insects attacking truck crops were conducted during the year. In this connection Mr. Cory reports that thirty acres of peas were dusted as demonstrations of methods which proved satisfactory the previous year. Twenty-two acres of cruciferous crops and 157 acres of melons

also were dusted with power and hand dusters owned by the State, thereby preventing a loss of from 40 to 95 per cent of the crops and effecting a saving of at least $35,000 on the melons alone. In conjunction with the plant pathologist, 53 acres of melons were dusted for control of the melon blight and 47 acres of cantaloupes and melons were dusted for the control of the squash lady beetle. In addition to this work approximately 6,000 pounds of insecticidal dusts were prepared on farms with a saving to farmers in costs of materials.

Beekeepers' Association.

Mr. Cory reports that the work in connection with the development of the bee industry in the State during the year centered around the Maryland State Beekeepers' Association, an organization for the promotion of the industry in Maryland. Mr. Cory continued to serve as secretary-treasurer of the organization during the year. The association held monthly meetings during the spring and winter in Baltimore and two summer meetings were held in addition to the meeting at College Park on Farmers' Day. The Association also shared largely in providing an excellent exhibit of honey and bees at the Timonium State Fair.

A survey of the quantity of honey made in the State during the season was made and will be published for general information. Likewise a house to house survey, covering the greater portion of Montgomery county, was undertaken. Much valuable and definite information regarding the bee industry in that county was thus obtained.

Extension activities by Mr. Cory's department during the year included 43 demonstrations, 110 orchard inspections, 27 apiary inspections, two exhibits judged, 47 nursery inspections, 106 examinations of grain samples and response to eight emergency calls.

PLANT PATHOLOGY.

The very great importance of controlling plant disease may be found not only in the tremendous losses sustained annually by farmers because of one disease or another but likewise in the increasingly critical demands of the market for quality agricultural products.

In the case of fruit and vegetables it is especially true that products showing the effects of disease are more than ever difficult to sell and not infrequently impossible to market at any price. In sections of specialized crop production, the control of plant diseases frequently means the difference between a crop and no crop.

It is likewise necessary for some agency to be constantly on guard against the introduction of new diseases or the spread of those already introduced. The discovery of the dangerous po-

tato wart disease in Western Maryland is a case that illustrates the need for prompt action and effective measures to protect agriculture against losses from new diseases.

Inspection and Safeguard.

The other important feature of disease control work lies in the inspection of crops and nursery stock grown for propagation purposes. It is first of all imperative that such plants and seeds be free from disease as a matter of protection to growers who purchase them. It is likewise essential that producers of such plants and seeds be acquainted with the most effective means of disease control if the production of native-grown plants and seeds is to be stimulated.

Attention during the past year has been centered in the control of diseases of cantaloupes, corn, potatoes, orchard fruits, sweet potatoes, tobacco and tomatoes while a very considerable effort has been devoted to developing the production of certified seed potatoes and disease-resistant strains of peas and tomatoes.

Cantaloupe Diseases.

Fourteen demonstrations in the control of cantaloupe diseases in Caroline, Dorchester and Wicomico counties were conducted during the year, according to the report submitted by Dr. R. A. Jehle, extension plant pathologist, and C. E. Temple, who serves as part time specialist in this work. Both spray and dust were used in these demonstrations with about equal results and with entire satisfaction to the growers. While the season was much more favorable for cantaloupes than that of the previous year, blight appeared soon after the first pickings and all unsprayed and undusted vines were quickly killed, resulting in premature ripening of the remaining fruit accompanied by inferior quality. Where the vines were sprayed or dusted four or five times at intervals of about ten days, they remained green from two to three weeks longer than those not treated. The quality of the fruit was better and it ripened more evenly so that there was no very large number of ripe melons at one time as was the case with untreated vines.

Corn Root Rot Demonstration.

Corn root rot demonstrations were continued during the year as a major feature of the work in cooperation with the Extension agronomist and the county agents. There were sixty-five actual demonstrations in nineteen counties during the year but many more growers took advantage of the suggested methods of selecting corn with reference to root rot. The demonstrations of the past

year, as well as those of previous years, have indicated clearly the value of careful seed selection in increasing the yields of corn.

Inoculated Sulphur Tried.

Demonstrations in the use of inoculated sulphur for the control of potato scab were limited during the past year to three in Worcester county and two in Somerset county, owing to indications of injurious results on succeeding crops following this treatment. In all cases the amount of sulphur was limited to 300 pounds per acre. In the treated plots there was a slight reduction of the amount of scab but the results were not sufficiently good to make the application profitable. The corn which is commonly planted between the potato rows in these two counties was decidedly dwarfed where sulphur was used. As a result of these demonstrations, the use of inoculated sulphur for the control of potato scab will not be recommended.

Potato Seed Certified.

During the year the potato fields of thirty-two growers in Allegany, Garrett, Somerset, Worcester, Howard and Baltimore counties were inspected for certification. Two inspections in the field and one in the bin were necessary except where disease and mixtures were found so prevalent as to make further inspections unnecessary. More than 7,000 bushels of certified seed potatoes were produced in the State during the year, including such varieties as Irish Cobblers, Spaulding Rose, Gold Coin, Endurance, Dibbles' Russet, Mills Prize, Green Mountain and late Petosky.

Repeated inspections of the area in Western Maryland where potato wart has been discovered have been necessary to keep this disease within bounds and to see that the regulations of the quarantine were being observed. During the year owners of gardens infected with the disease were persuaded either to plant immune varieties or to discontinue growing potatoes. Certified Irish Cobbler seed potatoes were purchased by the State from the Western Maryland Seed Potato Growers' Association and sold to owners of infected gardens at table stock prices. In gardens where this variety was planted only one vine, which proved to be a volunteer, was discovered with evidence of the disease.

Apple Scab Destructive.

In cooperation with the departments of horticulture and entomology twenty-nine orchard management demonstrations were conducted in thirteen counties of the State. Wherever orchards were thoroughly sprayed with the sprays recommended a very good quality of fruit, very free from disease and insect injuries,

was produced. Apple scab, one of the most destructive and one of the most difficult orchard diseases to control, appeared in an unusually severe form in orchards in Worcester, Wicomico and Somerset counties during the year. Complaints of many growers that scab could not be controlled led to an effort to discover the reasons. Trees too close together, careless spraying operations, failure to spray at the right time and the use of ineffective materials seem to be the principal conditions resulting in failure to control the disease.

Resistant Pea Seed.

Efforts to develop a strain of peas resistant to root rot have been continued in Talbot county. Starting with several hundred selections, two strains of the Early Alaska have been perpetuated and have shown uniform marked resistance to the disease. Some of the seed of these two resistant strains was grown at Oakland in Garrett county during the past year, as well as at Easton, in order to take advantage of the more favorable weather for pea seed production. It is planned now to increase the amount of seed of these two strains as rapidly as possible and to use it for root rot demonstrations on badly infected farms. If they prove desirable varieties and continue to show resistance to the disease, provision will be made for producing the seed on a commercial basis.

Other Plant Diseases.

Demonstrations in the control of sweet potato diseases and the wild fire of tobacco were conducted during the year with satisfactory results. A rapid increase in the use of wilt resistant tomato seed is reported. During the past eight years more than a hundred pounds of wilt resistant seed have been used in demonstrations and have been distributed to between four and five thousand growers, many of whom have perpetuated the stock. The production of wilt resistant seed by a grower on the Eastern Shore has been encouraged and he has been given assistance in getting the wilt resistant varieties established.

FARM ENGINEERING.

The possibilities for constructive and valuable work in the field of rural engineering are almost unlimited in Maryland. There is much land in the State that could readily be made productive by drainage There is need for advice and information in the remodeling and building of homes and barns. Likewise the installation of water systems and the proper construction of sanitary sewage disposal systems are of vital importance to the rural population.

The work in farm engineering, however, has necessarily been limited by the time which Mr. R. W. Carpenter, specialist in farm engineering, has been able to devote to Extension activities. Mr. Carpenter serves as Extension specialist on a part time basis and during the past year has confined his efforts to drainage, farm buildings and water supply systems.

He reports having conducted 18 drainage demonstrations in 11 counties. In all cases, his services in this connection have consisted of making the necessary surveys and in mapping out specific plans for the demonstrators to follow. Four of the demonstrations have been of the open ditch type and the balance have been in the use of tile.

Six demonstrations have been conducted in the construction of modern farm buildings. These demonstrations have required visits to the farm by the specialist and the preparation of special plans for the building or buildings proposed. Similar work has been necessary in connection with the four water supply projects conducted during the year.

Mr. Carpenter was called upon to give instruction during the Rural Women's Short Course and the Boys' and Girls' Club Week at the University of Maryland.

GENERAL EDUCATIONAL EXTENSION.

Under the head of General Educational Extension, the Extension Service endeavors to supply a demand from the rural people of the State which cannot be definitely classified under any other project. These demands include requests for lectures on general topics, motion picture films, correspondence courses and subject and material for debates.

Mr. C. S. Richardson, in charge of general educational extension, gives part of his time to this work. During the year he has personally met as many of the special requests for lectures as his time would permit and has usually secured a substitute when his presence was not possible. During the year he delivered 25 addresses at meetings attended by 4,000 persons.

Supervision of the motion pictures owned by the Extension Service and their distribution together with the duty of ordering films from the U. S. Department of Agriculture has been a valuable feature of Mr. Richardson's work. His report for the year shows:

Average of reels on hand for distribution	70
Total number of films exhibited	275
Total number of persons attending to see films	25,000
Pictures ordered from the U. S. Department of Agriculture	186

Correspondence courses in English, Fertilizers, Farm Poultry, Bee Keeping, Farm Dwelling Construction, Dairy Farming and Vegetable Gardening have been offered during the year. This phase of the work, however, has not been developed, owing to the lack of facilities for conducting it and to the fact that some of the courses need revision.

High School League.

The work in connection with the High School Public Discussion League has proved a valuable and popular means of developing interest in public speaking and in the open discussion of public questions among high school students of the State. Mr. Richardson has supplied the subject for debate together with material on both affirmative and negative sides. Inter-scholastic debates on this question are then held in the different counties represented in the league. Appropriate medals are awarded winning teams at the conclusion of the year.

There were fifty-nine schools enrolled in the league during the past year and Mr. Richardson reports that the prospects for 1924 are that more than eighty schools will take part in the debates. The High School Public Discussion League enjoys the hearty support and cooperation of the State Department of Education and is considered by the State superintendent of education as a most valuable adjunct to the high school work.

EASTERN SHORE FARMERS LEARN TO VALUE THE WOODLOT.

FORESTRY.

The rapidly diminishing areas devoted to timber production in the State and the constantly increasing demand for wood and wood products are sufficient evidences of the necessity of arousing interest in conserving the present timber supply and of developing lands now unused and suited to timber production.

Not only is a very large part of the remaining timber lands of the State included in farm property but the farmer continues to be the largest user of wood. It is important, therefore, that farmers be instructed in proper methods of handling and developing timber lands and in economical utilization of woodland products.

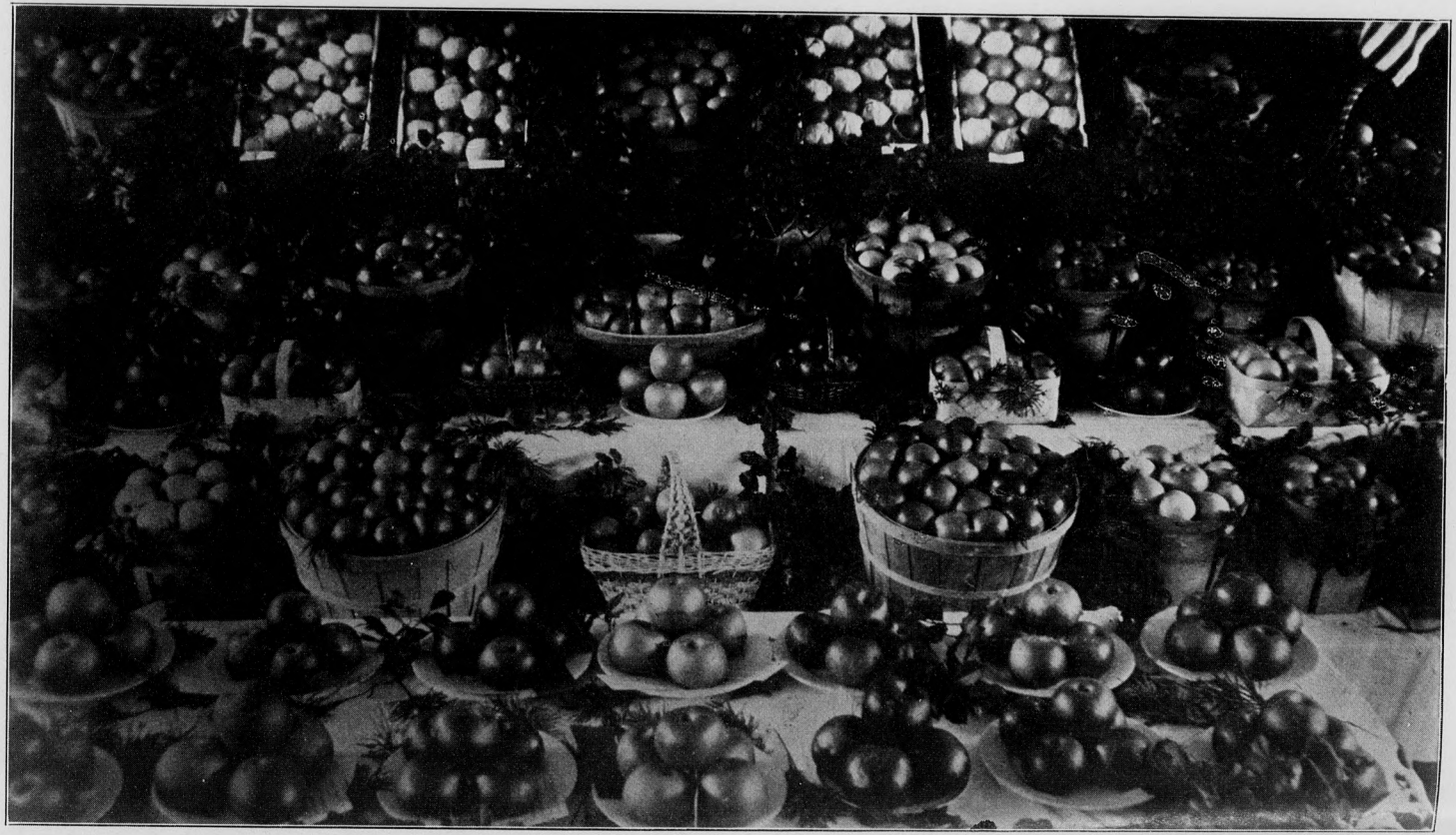
Forestry has been included as a part of the Extension program of work since November and in that brief time Mr. Samuel Corbin, forestry specialist, has had opportunity to do little more than initiate the work. He reports, however, having outlined forestry demonstrations in a number of counties in cooperation with the county agents in addition to delivering nine illustrated lectures before audiences averaging one hundred people. Utilization of fuel wood, thinning, timber marking, planting and examination of woodlands will form the basis for Extension work in forestry.

SOUTHERN MARYLAND IMMIGRATION COMMISSION.

The Extension Service has cooperated in every possible way with the Southern Maryland Immigration Commission which is endeavoring to develop the opportunities and possibilities of Southern Maryland. In this connection, the Extension Service has assisted in securing and preparing suitable exhibit material to be shown at leading agricultural exhibits throughout the country. It has likewise been able to assist in locating prospective settlers by turning over to the commission the names of people who have made inquiry regarding Maryland farm property. It is felt that the Southern Maryland Immigration Commission has been able to render the State a very valuable service in advertising throughout the country some of the State's principal agricultural resources and products.

MISCELLANEOUS WORK.

During the year it has frequently been necessary to ask for assistance in Extension work from the specialists of the College of Agriculture and the Experiment Station, especially at times when the demands upon the Service have been greater than Extension forces could meet. There has been a ready response to all of these requests and the Extension Service is indebted to the able assistance of Dr. H. J. Patterson, director of the Experiment Station; Prof. P. W. Zimmerman, dean of the College of Agri-



WORCESTER COUNTY GROWERS SET UP THIS ATTRACTIVE DISPLAY OF *QUALITY APPLES.*

culture; Prof. J. E. Metzger, agronomist for the Experiment Station; Prof. W. B. Kemp, associate professor of genetics and agronomy; Dr. A G. McCall, head of the soils department; Dr. DeVoe Meade, professor of animal husbandry; Dr. E. M. Pickens, professor of bacteriology and pathology; Prof. W. T. L. Taliaferro, professor of farm management and Prof. R. H. Waite, in charge of poultry work at the Experiment Station.

FAIRS

In promoting community shows and in assisting in collecting and arranging suitable agricultural exhibits for county fairs, the Extension Service has rendered every aid possible in the belief that these annual exhibits are important features of educational work in agriculture. No educational exhibit of a comprehensive kind, however, has been possible due to the lack of funds for this purpose. A department of exhibits should be established and supplied with adequate funds so that full advantage could be taken of the opportunity for the dissemination of information at fairs and community shows. With some assistance from the Timonium State Fair, the Service was able to make a very creditable exhibit at that fair during the past year.

Summary of Specialists' Work for 1923.

Following is a statistical summary of the work of the Extension Specialists for the year:

Total visits to demonstrations	1596
Visits other than to demonstrations	2215
Meetings and conferences attended	1364
Total attendance at these meetings	85,257
Addresses delivered	878
Fairs and community shows judged	90
Letters written	20,038
Miles traveled	184,019
Average days in field	164
Average days in office	115

CONCLUSION.

I have thus set forth the general activities of the Extension Service in the State. It is desired to record the progress made in each county and later it is hoped to include summaries from the agents' reports.

The relations of the cooperative work with the bureaus and Extension Service, U. S. Department of Agriculture, have been most satisfactory and agreeable. Valuable assistance has been rendered by various representatives of the Department of Agriculture to our forces in the State.

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WORCESTER COUNTY GROWERS SET UP THIS ATTRACTIVE DISPLAY OF QUALITY APPLES.

A survey of general conditions in the State is covered in the introduction to this report. From an Extension standpoint commendable progress has been made in increasing the efficiency of the Service and in reaching a much larger number of farmers and home makers of the State.

Obviously, additional funds are badly needed to meet the increasing demands for the work. The acute economic situation has necessarily had its effect in reducing the desire for increasing appropriations for any kind of public work. Even in the light of this situation, we were able to secure an increase of the county appropriations for the support of county agents last spring. We hope to have as favorable a response in 1924.

With the changing conditions that are apparent throughout the country in the manner of local support for Extension work, it is a gratification that the Maryland Service was launched upon a publicly supported basis; that is, that local support comes from public taxes levied by the boards of county commissioners.

The relation of the Service with the Farm Bureau, Grange and other farmers' organizations are most sympathetic, so that programs of work in which each are mutually interested are being prosecuted together.

The specialists and agents have been emphasizing cooperative marketing in its various aspects and good progress is being made notwithstanding our limited funds for this work.

I wish to reiterate my gratitude to the members of the Extension Service staff and especially to President Woods, who is always most sympathetic in forwarding the Extension work in the State. We are all indebted to the people of the State generally and to the press for the cordial support that is constantly accorded to the Extension Service.

FINANCIAL REPORT FOR FISCAL YEAR ENDING JUNE 30, 1923 IN ACCOUNT WITH THE UNITED STATES AND STATE APPROPRIATIONS UNDER SMITH-LEVER EXTENSION ACT, 1922-1923

	Smith-Lever Funds		
	Total	Federal	State
Dr.			
Unexpended balance from 1921-1922	---------	---------	---------
To receipts from the Treasurer of the United States and from State sources as per appropriations for fiscal year ended June 30, 1923, under act of Congress approved May 8, 1914 (Smith-Lever Act)	$131,927.02	$70,963.51	$60,963.51
Cr.			
By personal services	113,119.83	63,573.62	49,546.21
Supplies and materials	1,332.69	630.14	702.55
Communication service	756.66	287.27	469.39
Travel expenses	12,663.92	4,949.68	7,714.24
Transportation of things (service)	28.09	11.40	16.69
Printing, binding and distributing publications	2,583.48	312.62	2,270.86
Furnishing of heat, light, power, water, and electricity (service)	1,000.00	1,000.00	---------
Equipment (including live stock)	441.85	198.78	243.07
Miscellaneous	.50	---------	.50
Unexpended balance	---------	---------	---------
Total	$131,927.02	$70,963.51	$60,963.51

SUMMARY STATEMENT OF EXPENDITURES, BY PROJECTS, SHOWING SOURCES OF FUNDS USED FOR EXTENSION WORK,—FISCAL YEAR ENDING JUNE 30, 1923

	Total	Smith-Lever		State	County
		Federal	State		
Administration	$24,752.93	$10,515.12	$9,319.57	$4,918.24	--------
Printing and distribution of publications	2,892.48	312.62	2,270.86	309.00	--------
County agent work	99,773.60	40,011.26	18,624.23	17,902.11	$23,236.00
Home demonstration work	51,675.91	12,212.92	8,920.54	15,002.45	15,540.00
Boys' club work	7,342.66	950 94	5,979.33	412.39	--------
Agronomy	4,108.51	744.14	3,122.07	242.30	--------
Animal Industry	3,584.07	683.73	2,788.34	112.00	--------
Horticulture	7,076.89	2,691.91	3,432.03	952.95	--------
Dairying	3,883.94	1,160.27	2,391.13	332.54	--------
Rural Organization and Marketing	1,882.08	9.59	1,667.29	205.20	--------
Poultry	2,663.30	136.85	2,448.12	78.33	--------
Entomology	5,709.09	448.81	--------	5,260.28	--------
Pathology	3,989.10	1,085.35	--------	2,903.75	--------
General Educational Extension	2,735.20	--------	--------	2,735.20	--------
Total expenditures	$222,069.76	$70,963.51	$60,963.51	$51,366.74	$38,776.00
Unexpended balance	--------	--------	--------	--------	--------
Total	$222,069.76	$70,963.51	$60,963.51	$51,366.74	$38,776.00

SUMMARY OF EXPENDITURES, BY PROJECTS, SHOWING CLASSIFICATION OF EXPENDITURES FROM ALL FUNDS USED FOR EXTENSION WORK,—FISCAL YEAR ENDING JUNE 30, 1923

	TOTAL	Personal Service	Supplies and Materials	Communication Service	Travel Expenses	Transportation of things	Printing binding and distributing publications	Heat, light, power, water, and electricity	Equipment	Miscellaneous
Administration	$24,752.93	$20,147.38	$1,741.90	$1,147.54	$76.00	$117.46	----------	$1,000.00	$499.90	$22.75
Printing and distribution of publications	2,892.48	----------	----------	----------	----------	----------	$2,892.48	----------	----------	----
County agent work	99,773.60	75,768.79	3,433.75	8.10	20,562.78	----------	----------	----------	----------	----
Home demonstration work	51,675.91	37,427.09	1,540.00	8.00	12,700.32	----------	----------	----------	----------	.50
Boys' club work	7,342.66	5,747.73	----------	2.05	1,592.88	----------	----------	----------	----------	----
Agronomy	4,108.51	3,000.00	----------	2.65	1,105.86	----------	----------	----------	----------	----
Animal industry	3,584.07	3,000.00	----------	3.29	580.78	----------	----------	----------	----------	----
Horticulture	7,076.89	5,500.00	----------	8.20	1,568.69	----------	----------	----------	----------	----
Dairying	3,883.94	3,300.00	----------	----------	583.94	----------	----------	----------	----------	----
Rural organization and marketing	1,882.08	1,590.00	----------	----------	292.08	----------	----------	----------	----------	----
Poultry	2,663.30	1,653.33	----------	.40	1,009.57	----------	----------	----------	----------	----
Entomology	5,709.09	3,242.91	228.50	124.03	1,926.09	3.00	----------	----------	184.56	----
Pathology	3,989.10	2,900.00	----------	3.55	1,085.55	----------	----------	----------	----------	----
General educational extension	2,735.20	1,313.88	247.55	1.20	557.18	----------	----------	----------	615.39	----
Total expenditures	$222,069.76	$164,591.29	$7,191.70	$1,309.01	$45,641.72	$120.46	$2,892.48	$1,000.00	$1,299.85	$23.25

COUNTY HOME DEMONSTRATION AGENTS

County	Name	Headquarters
Allegany	*Bessie Volk	Cumberland
Anne Arundel	*Mrs. G. Linthicum	Annapolis
Baltimore	*Mary Graham	Towson
Calvert		
Caroline	*Emily Kellogg	Denton
Carroll	*Isabelle Cobb	Westminster
Cecil	*Lillian Grimm	Elkton
Charles	*Mrs. E. S. Bohannan	La Plata
Dorchester	*Sarah Coyne	Cambridge
Frederick	*Elizabeth Thompson	Frederick
Garrett		Oakland
Harford	*Eva K. Schurr	Bel Air
Howard		
Kent	*Susan Hill	Chestertown
Montgomery	*Blanche Corwin	Rockville
Prince George's	*Ellen Davis	Hyattsville
Queen Anne's		Centreville
St. Mary's	*Ethel Joy	Leonardtown
Somerset		Princess Anne
Talbot	*Mrs. O. K. Walls	Easton
Washington	*Susan Garberson	Hagerstown
Wicomico	*Florence Mason	Salisbury
Worcester	*Lucy Walter	Snow Hill

LOCAL AGENT

Charles and St. Mary's	*Leah Woodson	La Plata

GARDEN SPECIALIST

Madison and Lafayette Aves. Administration Building.	Adelaide Derringer	Baltimore

* In co-operation with the U. S. Department of Agriculture.

EXTENSION SERVICE BULLETINS

These will be sent free of charge to any address upon receipt of application at Office of Extension Service, College Park, Md.

BULLETINS

No. 2—Relation of Lime to Agriculture.
No. 3—The Garden.
No. 9—Electricity on the Farm.
No. 10—Improving the School Ground.
No. 12—Rural School Lunch.
No. 13—Why We Can Food.
No. 14—The Seventeen-Year Locust.
No. 15—Milk Cost Survey, August, 1918.
No. 16—Club Girls' Garden Record Book.
No. 17—Boys' Corn Club Lessons.
No. 18—Maryland Invites You.
No. 19—Boys' Potato Club Lessons.
No. 20—High School Discussion League—Correspondence League.
No. 21—Sewing Club Lesons.
No. 23—Garden Flowers.
No. 24—Making Pigs Pay.
No. 25—The Brood Sow and Her Litter.
No. 26—The Co-operative Association Law.
No. 28—Maryland Farm Statistics.
No. 29—Standards for Seed Corn.
No. 30—The Marketing of Wheat in Maryland.
No. 31—More Tomatoes From Fewer Acres.
No. 32—Maryland Farm Statistics, 1924.
No. 33—Cuttings Production Costs with Farm Machinery.
No. 34—More Vegetables from the Home Garden.